TRANSISTOR D.A.T.A.BOOK

FALL 1969

27th EDITION

THIS D.A.T.A.B O O K VALID UNTIL SPRING 1970 EDITION

D.A.T.A. INC. REFERENCE STANDARDS FOR INDUSTRY

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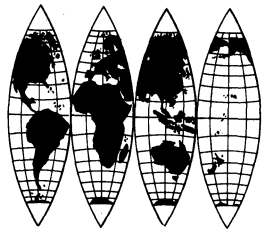

TRANSISTOR D.A.T.A.BOOK

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EDITORIAL PROCEDURES AND OBSERVATIONS

A Symbol/Code Interpreter will be found in the back cover pocket. It has been designed to provide, quickly and conveniently, explanations of the symbols and codes employed in the various sections of the D.A.T.A.BOOK, along with other technical support information.

Should the Interpreter be misplaced, we will send a free replacement immediately on your request. In the interim, you can use the symbol/code explanations summarized on pages iv and v of this D.A.T.A.BOOK.

Purpose

This D.A.T.A.BOOK is designed to report comprehensively on what is presently being produced (throughout the free world) in this specific component field. While a D.A.T.A.BOOK such as this cannot possibly provide 100% of the answers you might need, its primary aim is that of both facilitating the selection of types suitable to your technical requirements and directing you to sources of their manufacture.

Technical Data Collection

D.A.T.A. acquires and processes the information presented in this D.A.T.A.BOOK with the cooperation of the participating manufacturers who supply us with latest changes. Manufacturers are not charged for technical listings of their products.

JEDEC Type Numbers

For 2N and 3N types, the electrical and physical characteristics data included in this D.A.T.A.BOOK are those registered with JEDEC. Indicated manufacturers' types may or may not conform exactly with the registered specifications; therefore, individual manufacturers' complete specifications should be checked to determine suitability for particular requirements.

Substitute Types

This D.A.T.A.BOOK cannot truly claim to be an interchangeability chart; however, because of the sequencing arrangement, by characteristics, in the technical data sections, types with near-identical or similar characteristics appear together, one after the other. For the engineer, this immediate source of technical comparison is superior to, and safer than, a mere listing of possible replacement type numbers.

Price and Availability

Because of the rapid change in the transistor field, back-up, delivery, and price information should be obtained direct from the manufacturers or their local offices, as included in this D.A.T.A.BOOK. See Table of Contents.

Manufacturers' Specifications

This D.A.T.A.BOOK includes currently manufactured types, with their major characteristics and their manufacturers. Every effort is made to ensure the accuracy of all entries herein; however, the publisher cannot be held responsible or guarantee against the possibility of error or omission. Only the manufacturers themselves can provide you with complete technical details.

Discontinued Transistors

Since the first edition of this D.A.T.A.BOOK in 1956, thousands of transistors have been discontinued by the manufacturers. In response to many requests from our subscribers, there is now available the annual D.A.T.A. DISCONTINUED TRANSISTOR D.A.T.A.BOOK, providing the most complete compilation of discontinued transistors, along with their characteristics, ever assembled. See order card inside front cover of this D.A.T.A.BOOK.

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EXPLANATIONS OF SYMBOLS AND CODES EMPLOYED IN THIS D.A.T.A.BOOK

(for emergency use if separate Symbol/Code Interpreter is misplaced)

TYPE No. (All Sections)

△ ☑ % Indicators of separate manufacturers producing same type number (non-JEDEC) whose characteristics are not the same. This manufacturer-identifying symbol (assigned by D.A.T.A.) is an integral part of the type number (in Type No. Cross Index, Technical Data Sections, and Manufacturers and Their Types Section) to avoid the possibility of confusing the device of one manufacturer with the devices of the others.

Example . . .	Type No.	Manufacturer	Description
	S35△	SELB	Sect. 5
	S35☑	ROSG	Sect. 13
	S35%	TII	Sect. 8

For SECTION 1 — TYPE NO. CROSS INDEX
Preceding Manufacturer Code

△ — Registered with JEDEC by this manufacturer

For SECTIONS 2 - 11 — TECHNICAL DATA SECTIONS
Arranged alphabetically by governing column headings without regard to section number

GENERAL NOTES: (1) When letters representing units follow a value in a column of a technical section, the units shown in the column heading do not apply.
(2) All values in this D.A.T.A.BOOK are typical and given at 25°C ambient unless otherwise indicated.

- **Bias — I_C**
  ϕ - I_B △ - I_E
- **Bias — I_E**
  ϕ - I_C △ - I_B
- **Bias — V_{CB}**
  ϕ - V_{CE}
- **BV_{CBO}**
  † - At Temp. 25° C Case
- **BV_{CEO}**
  # - BV_{CEX} or punch-through § - BV_{CER} ☑ - $BV_{ceo(sus)}$
  ϕ - BV_{CES} * - Pulsed
- **BV_{DDS}**
  △ - BV_{DSO} † - BV_{DSX}
- **BV_{GSS}**
  △ - BV_{DGO}
- **BV_{EBO}**
  † - At Temp. 25° C Case
- **C_{ob}**
  ☑ - Maximum $ — C_{cb} § — C_{iss} (FET's only) † - C_{re}
- **Derate**
  ∅ - With infinite heat sink
- **Description**

I_{off}	- Offset current	r_d	- Dynamic resistance
I_p	- Peak current	V_{GD}	- Gate-to-drain voltage
I_{SR}	- Intrinsic standoff ratio		
I_v	- Valley current	V_{off}	- Offset voltage
R_{b1b2}	- Interbase resistance	V_{PO}	- Pinchoff voltage

- **Drawing No.** → • for Sections 6 and 7; ☑ - Phototransistor Device; △ - Tetrode Device; % - Composite type
- **$f\alpha_b$**
  † - $f\alpha_e$
  § - Gain bandwidth product (f_T)
  * - Maximum frequency of oscillation
  ϕ - Figure of merit (frequency for unity power gain)
  △ - Minimum ☑ — Maximum
- **$f\alpha_e$**
  † - $f\alpha_b$
  § - Gain bandwidth product (f_T)
  * - Maximum frequency of oscillation
  ϕ - Figure of merit (frequency for unity power gain)
  △ - Minimum ☑ — Maximum
- **gfs**
  △ - Typical † - Pulsed % - High Frequency (y_{fs})
- **h_{FE}**
  † - h_{fe} △ - Minimum § — Y_{fs} in millimho (FET's only) Bias values are V_{DS} & I_D
  # - Pulsed ☑ - Maximum
  ϕ - Typical * - Available to selected range narrower than indicated
- **h_{fe}**
  † - h_{FE} △ - Minimum * - Available in selected ranges.
  # - Pulsed ☑ - Maximum § - h_{FC}
  § — Y_{fs} in millimho (FET's only) Bias values are V_{DS} & I_D
- **h_{oe}, h_{ie}, h_{re}**
  b - h parameters are h_{ob}, h_{ib}, h_{rb} ☑ - Maximum
- **I_B** ϕ - I_E # - Pulsed
- **I_C** ϕ - I_E † - At Temp. 25°C Case # - Pulsed or Peak
- **I_E** ϕ - I_C △ - I_B
- **Lead Code**
  See Lead Code Identification Guide on inside back cover of Interpreter and at end of Section 15.
- **Line No.**
  ▼ - New type
  # - Non-JEDEC type manufactured outside U.S.A. ◆ Revised specifications
- **Material**
  Ge - Germanium Si - Silicon
- **Max. Coll. Diss.**
  ϕ - With infinite heat sink
  Following symbols indicate temperature at which derating starts:
  † - 40°C ☑ - 60°C ♦ - 80°C # - 50°C
  * - 45°C § - 70°C △ — Pulsed $ - 100°C
  △ - 85°C for Sec 2, 3, 4, 5
- **Max. C_{is}**
  # - C_{iss} (output shorted) * - Typical
  △ - C_{dgs} ☑ - C_{dss}
  † - C_{gss} ∅ - C_{dgo}
  % - Not given at test conditions
- **Max. Delay Time**
  $ - Charge storage time constant ϕ - $T_{ON} = t_r + t_d$
  ▼ - Stored base charge — picocoulomb † - Typical value
  ◆ - Total switching time
- **Max. Device Dissipation**
  △ - With Infinite Heat Sink † - Above 25°C; For additional information consult mfr.

- **Max. Fall Time**
  ϕ - $T_{OFF} = t_s + t_f$ * - $T_{on} + T_{off} = td + tr + tf + ts$
  † - Typical value

- **Max. I_{CBO}**
  ϕ - At V_{CB} < Max. V_{CB} (see mfr. spec.)
  # - I_{CEX} ♦ - At Temp. 25°C Case
  § - I_{CES} △ - I_{CEO}
  † - At temp. > 25°C * - I_{CER}

- **Max. I_D (on)**
  △ - I_{DSS} @ $V_{GS} = 0$ and $V_{DS} \approx V_P$ # - Minimum
  ∅ - $V_{GS} > 0$ % - Pulsed
  * - Typical

- **Max. I_{GSS}**
  △ - I_{GDO}

- **Max. Rise Time**
  $ - Charge storage time constant ϕ - $T_{ON} = t_r + t_d$
  ▼ - Stored base charge — picocoulomb † - Typical value
  ◆ - Total switching time

- **Max. Sat. Res.**
  ▼ - Typical value § — R_{on} (FET's only) # — Pulsed

- **Max. Storage Time**
  ϕ - $T_{OFF} = t_s + t_f$ * - $T_{on} + T_{off} = td + tr + tf + ts$
  † - Typical value

- **Max. Temp.**
  * - 50-65°C ÷ - 130- 135°C A - Ambient
  ϕ - 70-80°C $ - 140-165°C C - Case
  # - 85-100°C § - 170-200°C J - Junction
  ◆ - 110-125°C ▼ - Over 200°C S - Storage

- **Max. Thermal Res.**
  Symbols indicate temperature at which derating starts.
  † - 40°C ♦ - 80°C
  * - 45°C ☒ - 60°C $ - 100°C
  # - 50°C § - 75°C ϕ - Free air
  ▼ - Typical value
  △ - > 100°C

- **Max. V_P at $I_D \approx 0$**
  † - V_{GS} (cut off) % - Typical
  △ - V_{GST} (Threshold)

- **& V_{DS}**
  △ - Depletion Mode, Type A
  $ - Depletion-Enhancement Mode, Type B
  * - Enhancement Mode, Type C

- **$r'_{bb} \times C_{ob}$**
  † - r'_{bb}

- **r_{DS}**
  % - Maximum △ - Not given at test conditions
  † - $R_{DS(on)}$ @ $V_{DS} = 0$

- **Structure**
  A - Alloy
  AN - Annular
  D - Diffused or drift
  DM - Diffused mesa
  E - Epitaxial
  EA - Epitaxial annular
  EM - Epitaxial mesa
  F - Fused
  G - Grown
  MA - Micro alloy
  MD - Micro alloy diffused
  ME - Mesa
  MOS - Metal oxide silicon
  N - NPN or N Channel
  P - PNP or P Channel
  PA - Precision alloy
  PC - Point contact
  PD - Precision alloy diffused
  PE - Planar epitaxial
  PL - Planar
  S - Surface barrier
  * - Matched Pair
  △ - Switching, other uses
  ☒ - Chopper, other uses
  ϕ - Noise figure 8db or below
  † - Plastic Package
  § - Field Effect Transistor
  # - Radiation Resistant Device
  $ - Tetrode
  H - Hometaxial

  for Sections 6 and 7
  Ge - Germanium
  # - Junction Type
  * - Insulated Gate (MOS type)
  § - Matched Pair

- **t_r**
  ☒ - Maximum § - t_s † - $t_s + t_f = T_{off}$
  ∅ - $t_r + t_d = T_{on}$ # - t_f

- **Type No.**
  † - Switching type, also listed in Section 12
  ∅ - Chopper, also listed in Section 13, Category 10
  * - These types also included elsewhere with other characteristics. See Type No. Cross Index for alternate line No.
  § — Radiation Resistant Devices. Also listed in Section 13, Category 13.
  ▼ - Matched Pair , also listed in Section 13, Category 6.
  ♦ - Phototransistor, also listed in Section 13, Category 7.

- **V_{CB}**
  ϕ - V_{CE}

- **V_{DS}**
  △ - V_{GD} † - V_{DG}

- **V_{GS}**
  ϕ - I_D in mA

- **Yos**
  △ - Y_{is} % - Maximum
  † - Not at given test conditions * - Pulsed

For SECTION 13— MISCELLANEOUS TRANSISTORS

- **Category**
  1 - Avalanche Mode
  2 - Bi-directional
  3 -
  4 - Hook Collector
  5 - Complementary— Symmetry (PNP & NPN) Matched Pair
  6 - Matched Pair
  7 - Phototransistor
  8 -
  9 - Unijunction
  N - N-type emitter
  P - P-type emitter
  10 - Chopper
  11 - Composite
  12 - Cryogenic
  13 - Radiation Resistant Devices
  14 - Pressure Sensitive
  15 - Chips

1. TYPE No. CROSS INDEX

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2N213	♦ETC	58-102
2N213A	♦ETC	58 - 97
2N214	♦ETC	58-101
2N214A	ETC	58 - 96
2N215	♦ETC	49 - 83
2N216	♦ETC	57 - 18
2N217	♦△RCA	49 - 28
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2N218	♦ETC	43 - 60
2N219	♦ETC	46 - 26
2N220	♦ETC	43 - 13
JAN2N220	RCA	43 - 8
2N223	♦ETC	55 - 2
2N224	♦ETC	54-110
2N225	♦ETC	55 - 1
2N226	♦ETC	54-106
2N227	♦ETC	54-107
2N228	♦ETC	58 - 98
2N229	♦ETC	58 - 99
2N231	SPR	43 - 2
2N233	♦ETC	58 - 21
2N233A	♦ETC	58 - 22
2N234A	♦△SOD	116 - 11
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2N235A	♦△SOD	116 - 12
	♦ETC	KSC
2N235B	♦△SOD	116 - 13
	♦ETC	KSC
2N236A	△SOD	116 - 14
	♦ETC	KSC
2N236B	△SOD	116 - 15
	♦ETC	KSC
2N237	♦ETC	49 - 69
2N238	ETC	49 - 29
2N240	♦SPR	43 - 39
JAN2N240	SPR	43 - 22
2N241	♦ETC	47 - 55
2N241A	♦△GESY	53 - 33
	♦ETC	
2N242	♦ETC	115 - 21
	♦MOTA	SOD
2N243	♦△TII	99 - 51
	♦ETC	♦TEC
2N244	♦△TII	99 - 52
	♦ETC	♦TEC
2N249	ETC	55 - 96
2N250	♦ETC	118-107
KSC	SOD	
2N250A	♦△TII	119 - 68
	♦ETC	KSC
		SOD
2N251	△TII	118-108
	♦ETC	♦KSC
		SOD
2N251A	♦△TII	119 - 69
	♦ETC	KSC
		SOD
2N252	ETC	43 - 32
2N253	♦ETC	57 - 36
2N254	ETC	57 - 37
2N255	ETC	115 - 22
KSC	SOD	
2N255A	♦DEL	115 - 23
ETC	KSC	
	SOD	
2N256	ETC	115 - 24
KSC	SOD	
2N256A	ETC	115 - 25
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2N257	♦ETC	117 - 5
KSC	SOD	
2N257B	♦ETC	117 - 6
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2N257G	♦ETC	117 - 7
	KSC	
2N257W	♦ETC	117 - 8
	KSC	
2N263	△TII	74 - 77
SCA	TEC	
2N264	△TII	73 - 53
	♦TEC	
2N265	♦ETC	45 - 63
2N268	♦ETC	117 - 9
KSC	SOD	
2N268A	♦ETC	117 - 10
KSC	SOD	
2N269	♦ETC	48 - 15
2N270	♦△RCA	54 - 84
	♦ETC	
2N271	ETC	49 - 14
2N271A	ETC	49 - 15
2N272	ETC	49 - 70
2N273	ETC	49-100
2N274	♦△RCA	46 - 45
2N277	♦△DEL	122 - 86
♦ETC	♦MOTA	
MULB	PHIC	
	RADF	
2N278	♦△DEL	122 - 87
♦ETC	♦MOTA	
2N279	♦ETC	48 - 80
2N280	♦ETC	48 - 81
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2N281	♦ETC	48 - 83
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2N282	♦ETC	182 - 1
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2N283	♦ETC	48 - 89
2N284	♦ETC	48 - 84
	PHIC	
2N284A	♦ETC	48 - 85
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2N285A	♦△SOD	118 - 8
	♦ETC	
2N285B	△SOD	118 - 9
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2N291	ETC	52 - 50
2N292	♦ETC	57 - 41
	♦GESY	
2N292A	♦ETC	57 - 74
2N293	ETC	57 - 45
	♦GESY	
2N296	♦ETC	115 - 26
KSC	SOD	
2N297	CNS	117 - 11
♦ETC	KSC	
	MOTA	
2N297A	♦DEL	116 - 16
♦ETC	IDC	
KSC	MOTA	
	♦SOD	
JAN2N297A	KSC	117 - 12
MOTA	SOD	
2N301	♦DEL	119 - 4
♦ETC	♦KSC	
MINA	MOTA	
	SOD	
2N301A	♦DEL	119 - 5
♦ETC	KSC	
MOTA	SOD	
2N302	♦ETC	50-102
2N303	♦ETC	51 - 27
2N306	♦ETC	58-100
2N307	♦ETC	117 - 13
KSC	♦MOTA	
	SOD	
2N307A	♦ETC	117 - 14
KSC	♦MOTA	
	SOD	
2N308	♦ETC	43 - 33
2N309	♦ETC	43 - 34
2N310	ETC	43 - 35
2N311	♦ETC	49 - 30
	GIC	
2N312	♦ETC	58 - 8
	GIC	
2N315	♦ETC	50 - 86
	♦ITC	165 - 68
2N315A	△GIC	50 - 87
♦ETC	ITC	165 - 69
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2N316	△GIC	51 - 21
♦ETC	♦ITC	166 - 61
2N316A	△GIC	51 - 22
♦ETC	ITC	166 - 60
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2N317	♦ETC	51 - 35
	♦ITC	167 - 45
2N317A	♦ETC	51 - 36
ITC	MST	167 - 46
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2N319	♦△GESY	54 - 39
♦ETC	ITC	
	♦MOTA	
2N320	♦△GESY	54 - 44
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2N320	♦ETC	
(cont.)	GIC	ITC
		♦MOTA
2N321	♦△GESY	54 - 46
♦ETC	ITC	
	♦MOTA	
2N322	♦△GESY	53 - 10
♦ETC	ITC	
	♦MOTA	
2N323	♦△GESY	53 - 36
♦ETC	ITC	
	♦MOTA	
2N324	♦△GESY	53 - 50
♦ETC	ITC	
	♦MOTA	
2N326	♦KSC	124 - 16
JAN2N326	KSC	124 - 13
2N327A	♦△RAYN	62 - 25
♦CRY	♦ETC	
♦SOD	SSI	
TADI	♦TII	
	TIIB	
2N327B	♦△CRY	68 - 36
♦RAYN	SSI	
	TADI	
2N328A	♦△RAYN	62 - 31
♦CRY	♦ETC	
♦SOD	SSI	
TADI	♦TII	
	TIIB	
JAN2N328A	CRY	68 - 14
	RAYN	SOD
2N328B	♦△CRY	68 - 39
♦RAYN	SSI	
	TADI	
2N329A	♦△RAYN	68 - 9
♦CRY	♦ETC	
♦SOD	SSI	
TADI	♦TII	
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JAN2N329A	CRY	68 - 15
	RAYN	SOD
2N329B	♦△CRY	68 - 45
♦RAYN	SSI	
	TADI	
2N330A	CRY	68 - 7
♦SOD	SSI	
2N331	ETC	55 - 80
♦GIC	ITC	
	MOTA	
JAN2N331	MOTA	52 - 97
2N332	♦△TII	74 - 48
CNS	♦ETC	
♦GESY	SCA	
SSI	♦TEC	
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2N332A	♦△GESY	94 - 90
♦ETC	SSI	
TEC	TII	
2N333	♦△TII	74 - 53
CNS	♦ETC	
♦GESY	SCA	
SSI	♦TEC	
TEK	TIIB	
JAN2N333	GESY	74 - 32
TEC	TII	
2N333A	♦△GESY	94 - 91
♦ETC	SSI	
TEC	TII	
JAN2N333A	none	94 - 84
2N334	♦△TII	74 - 55
CNS	♦ETC	
♦GESY	SCA	
SSI	♦TEC	
TEK	TIIB	
2N334A	♦△GESY	94 - 92
♦ETC	SSI	
TEC	TII	
2N335	♦△TII	74 - 60
CNS	♦ETC	
♦GESY	SCA	
SSI	TADI	
♦TEC	TEK	
	TIIB	
JAN2N335	GESY	74 - 33
TEC	TII	
2N335A	♦△GESY	94 - 93
♦ETC	SSI	
TADI	TEC	
	TII	
JAN2N335A	GESY	94 - 85
	TEC	
2N335B	♦△GESY	94 - 94
♦ETC	SSI	
	TADI	
2N336	♦△TII	74 - 70
CNS	♦ETC	
♦GESY	SCA	
SSI	TADI	
	♦TEC	
JAN2N336	GESY	74 - 34
TEC	TII	
2N336A	♦△GESY	94 - 95
♦ETC	SSI	
TADI	TEC	
	TII	
JAN2N336A	none	94 - 86
2N337	♦△TII	73 - 54
♦ETC	♦GESY	
PHIC	PHIN	
SCA	SSI	
♦TEC	TIIB	

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JAN2N337	GESY	73 - 55
	TEC	
	TII	
2N337A	♦△GESY	94 - 98
	♦ ETC	SSI
		TEC
2N338	♦△TII	73 - 61
	♦ ETC	PHIC
		PHIN
		SCA
	SSI	♦ TEC
		TIIB
JAN2N338	GESY	73 - 62
	TEC	TII 168 - 65
2N338A	△GESY	94 -103
	♦ ETC	SSI
		TEC
2N339	♦△TII	103 - 15
	♦ ETC	♦ TEC
2N339A	♦△TEC	103 - 39
	♦ ETC	
2N340	♦△TII	103 - 16
	♦ ETC	♦ TEC
2N340A	♦△TEC	103 - 40
	♦ ETC	
2N341	♦△TII	103 - 17
	♦ ETC	♦ TEC
JAN2N341	TEC	99 - 57
	TII	
2N341A	♦△TEC	103 - 41
	♦ ETC	
2N342	♦△TII	103 - 18
	♦ ETC	♦ TEC
JAN2N342	TEC	103 - 21
	TII	
2N342A	♦△TII	103 - 19
	♦ ETC	TEC
JAN2N342A	none	103 - 22
2N342B	ETC	103 - 24
	TEC	
2N343	♦△TII	103 - 20
	♦ ETC	♦ TEC
JAN2N343	TEC	103 - 23
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2N343A	ETC	72 - 66
	TEC	131 - 89
2N343B	ETC	103 - 25
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2N344	♦ SPR	43 - 15
	SSI	
2N345	♦ SPR	43 - 16
	SSI	
2N346	♦ SPR	43 - 17
	SSI	
2N350	♦△MOTA	119 - 70
	♦ ETC	KSC
		SOD
2N350A	♦△MOTA	119 - 71
	♦ ETC	KSC
		SOD
2N351	♦△MOTA	119 - 72
	ATEI	♦ ETC
	KSC	SOD
2N351A	♦△MOTA	119 - 73
	♦ ETC	KSC
		SOD
2N356	△GIC	57 - 70
	♦ ETC	164 -103
2N356A	△GIC	58 - 9
	♦ ETC	161 - 28
2N357	△GIC	57 - 76
	♦ ETC	165 - 77
2N357A	△GIC	58 - 10
	♦ ETC	161 - 21
2N358	△GIC	57 - 79
	♦ ETC	165 -109
2N358A	△GIC	58 - 11
	♦ ETC	161 - 22
JAN2N358A	GIC	58 - 12
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2N359	♦ ETC	52 - 36
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2N360	♦ ETC	52 - 31
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2N361	♦ ETC	52 - 32
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2N362	♦ ETC	52 - 30
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2N363	♦ ETC	52 - 27
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2N364	♦ ETC	58 - 27
2N365	♦ ETC	58 - 32
2N366	♦ ETC	58 - 41
2N367	♦ ETC	49 - 65
2N368	♦ ETC	49 - 67
2N369	♦ ETC	50 - 23
2N375	♦△MOTA	119 - 74
	♦ ETC	KSC
		♦ SOD
2N376	♦△MOTA	119 - 75
	ATEI	♦ ETC
	KSC	SOD
2N376A	♦△MOTA	119 - 76
	♦ ETC	KSC
		SOD
2N377	♦ ETC	58 - 64
	♦ GIC	TII 165 - 79
2N377A	♦ ETC	58 - 65
	♦ GIC	165 - 80
2N378	♦ ETC	118 - 63
	KSC	♦ MOTA
		SOD
2N379	♦ DEL	118 - 64
	♦ ETC	KSC
	♦ MOTA	SOD

TYPE No.	MFRS	Pg&Line
2N380	♦ DEL	118 - 65
	♦ ETC	KSC
	♦ MOTA	SOD
2N381	♦ ETC	54 - 47
	ITC	♦ MOTA
2N382	♦ ETC	55 - 36
	GIC	ITC
		♦ MOTA
2N383	♦ ETC	54 - 55
	ITC	♦ MOTA
2N384	♦△RCA	48 - 68
		♦ NPC
JAN2N384	RCA	48 - 5
2N385	♦ ETC	58 - 66
		♦ GIC
2N385A	♦ ETC	58 - 68
	♦ GIC	
2N388	ESMF	58 - 84
	♦ ETC	♦ GIC 165 -101
	IDC	MISI
	♦ NPC	PHIN
	RADF	♦ TII
		TIIF
JAN2N388	GIC	58 - 53
	RCA	TII 161 - 25
2N388A	♦ ETC	58 - 69
	GIC	♦ TII 165 -103
		TIIF
2N389	♦△TII	149 - 6
	ETC	SEN
	♦ SIL	♦ SLA
	♦ SOD	SPC
	SSI	♦ TEC
		TIIB
JAN2N389	SIL	149 - 39
	SLA	TII
2N389A	♦△SIL	149 - 7
	ETC	SEN
	♦ SLA	♦ SOD
	SPC	SSI
	TEC	TII
2N392	♦△DEL	121 - 98
	♦ ETC	KSC
		SOD
2N393	♦ SPR	43 - 28
		169 - 65
JAN2N393	MOTA	43 - 62
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2N394	♦△GESY	50 - 74
	♦ ETC	ITC
2N394A	♦△GESY	50 -103
		♦ ETC
2N395	♦△GESY	53 - 84
	♦ ETC	GIC 165 - 44
	ITC	RAYI
	TII	TIIF
2N396	♦△GESY	51 - 1
	ESMF	♦ ETC 165 - 95
	GIC	ITC
	MISI	♦ NPC
	RADF	RAYI
	SOD	TII
		TIIF
2N396A	♦△GESY	53 - 88
	ESMF	♦ ETC 165 - 62
	GIC	ITC
	MISI	PHIN
	RADF	RAYI
		TIIF
JAN2N396A	GESY	53 - 89
2N397	♦△GESY	53 -110
	ESMF	♦ ETC 166 - 58
	GIC	ITC
	MISI	♦ NPC
	PHIN	RADF
	RAYI	TII
2N398	♦△RCA	43 -108
	ETC	♦ MOTA
	RAYI	♦ TII
		TIIF
2N398A	♦△MOTA	49 -101
	ETC	RAYI
	♦ RCA	♦ TII
JAN2N398A	MOTA	49 - 75
	RCA	
2N398B	♦△RCA	55 - 7
		♦ TII
2N399	♦△SOD	116 - 17
	♦ ETC	KSC
2N400	♦△SOD	116 - 18
	♦ ETC	KSC
2N401	♦△SOD	116 - 19
	♦ ETC	KSC
2N402	ETC	52 - 52
2N403	ETC	52 - 54
2N404	CNS	51 - 25
	ESMF	♦ ETC 166 - 63
	♦ GESY	GIC
	IDC	ITC
	MISI	♦ NPC
	PHIN	RADF
	RAYI	♦ SES
	♦ TII	TIIF
		VALG
JAN2N404	GIC	50 - 75
	RCA	TII
2N404A	CNS	50 - 76
	ESMF	♦ ETC 165 - 41
	♦ GESY	GIC
	IDC	MISI
	MST	♦ NPC
	RAYI	♦ RCA

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TYPE No.	MFRS	Pg&Line
2N404A		
(cont.)	♦ SES	
	♦ TII	TIIF
JAN2N404A	GIC	50 - 77
	RCA	TII
2N405	♦ ETC	49 - 78
2N406	♦△RCA	49 - 79
	ATEI	♦ ETC
2N407	♦ ETC	49 - 31
2N408	♦△RCA	49 - 32
	ATEI	♦ ETC
		NPC
2N409	♦ ETC	46 - 17
2N410	♦ ETC	46 - 18
2N411	♦ ETC	46 - 37
2N412	♦ ETC	46 - 38
2N413	CNS	52 - 33
	♦ ETC	♦ GESY
	GIC	♦ ITC
2N413A	♦ ETC	50 - 46
2N414	CNS	52 - 40
	♦ ETC	♦ GESY
	GIC	♦ ITC
		♦ RCA
2N414A	♦ ETC	50 -104
2N414B	△ITC	53 - 98
		ETC
2N414C	△ITC	53 - 99
		ETC
2N415	ETC	51 - 7
2N415A	ETC	51 - 8
2N416	CNS	52 - 41
	♦ ETC	♦ GIC
		♦ ITC
JAN2N416	TII	50 - 88
2N417	CNS	52 - 45
	♦ ETC	♦ GIC
		♦ ITC
JAN2N417	TII	51 - 28
2N418	♦△SOD	116 - 20
	♦ ETC	KSC 178 - 55
2N419	♦△SOD	116 - 21
	♦ ETC	KSC
2N420	♦△SOD	116 - 22
	♦ ETC	KSC 178 - 56
2N420A	♦△SOD	116 - 23
	♦ ETC	KSC 178 - 57
2N422	♦ ETC	49 - 89
		ITC
JAN2N422	none	49 -102
2N424	♦△TII	149 - 20
	ETC	IDC
	RAYN	SEN
	♦ SIL	♦ SLA
	♦ SOD	SPC
	SSI	♦ TEC
		TIIB
JAN2N424	SIL	149 - 40
	SLA	TII
2N424A	♦△SIL	149 - 8
	ETC	SEN
	♦ SLA	♦ SOD
	SPC	SSI
	TEC	TII
2N425	CNS	52 - 38
	♦ ETC	GIC 165 - 40
	♦ ITC	MST
JAN2N425	none	50 - 47
		164 - 69
2N426	CNS	52 - 39
	♦ ETC	♦ GIC 162 - 54
	♦ ITC	MST
	♦ NPC	♦ TII
JAN2N426	none	50 - 55
		164 - 96
2N427	CNS	52 - 43
	♦ ETC	GIC 166 - 56
	♦ ITC	MST
		♦ TII
JAN2N427	TII	50 - 89
		165 - 63
2N428	CNS	52 - 44
	♦ ETC	GIC 166 -109
	♦ ITC	MST
	♦ NPC	♦ TII
JAN2N428	GIC	51 - 9
	TII	166 - 36
2N428A	ETC	51 - 10
	GIC	166 - 37
2N438	CNS	58 - 46
	♦ ETC	♦ GIC 165 - 4
		TII
2N438A	♦ ETC	50 - 73
	GIC	TII
2N439	CNS	57 - 78
	♦ ETC	♦ GIC
		TII
2N439A	♦ ETC	50 -107
		GIC
2N440	CNS	58 - 75
	♦ ETC	♦ GIC 166 - 13
		TII
2N440A	♦ ETC	51 - 11
		GIC
2N441	♦△DEL	122 - 88
	♦ ETC	♦ MOTA
	MULB	PHIC
	PHIN	RADF
2N442	♦△DEL	122 - 89
	♦ ETC	♦ MOTA
	MULB	PHIC
		RADF
2N443	♦△DEL	122 - 90

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TYPE No.	MFRS	Pg&Line
2N443		
(cont.)	♦ ETC	
	♦ MOTA	MULB
2N444	△GIC	57 - 66
	♦ ETC	
2N444A	♦ ETC	58 - 17
2N445	△GIC	57 - 67
	♦ ETC	
2N445A	△GIC	58 - 23
	♦ ETC	
2N446	△GIC	57 - 75
	♦ ETC	
2N446A	△GIC	58 - 54
	♦ ETC	
2N447	△GIC	57 - 80
	♦ ETC	
2N447A	△GIC	58 - 74
	♦ ETC	
2N447B	ETC	161 - 14
	GIC	
2N448	ETC	57 - 42
	♦ GESY	
2N449	♦△GESY	57 - 46
	♦ ETC	
2N450	ETC	51 - 12
	♦ GESY	ITC
2N456	♦ ETC	118 - 52
	KSC	♦ SOD 163 - 48
2N456A	♦△TII	119 - 77
	♦ DEL	♦ ETC
	KSC	♦ MOTA
	♦ SOD	TIIB
2N456B	♦△TII	119 - 78
	♦ DEL	♦ ETC
	KSC	♦ SOD
JAN2N456B	SOD	122 - 91
	TII	
2N457	♦ ETC	118 - 53
	IDC	KSC 163 - 49
		♦ SOD
2N457A	♦△TII	119 - 79
	♦ DEL	♦ ETC
	IDC	KSC
	♦ MOTA	♦ SOD
		TIIB
2N457B	♦△TII	119 - 80
	♦ DEL	♦ ETC
	IDC	KSC
		♦ SOD
JAN2N457B	SOD	122 - 92
	TII	
2N458	♦ ETC	118 - 54
	KSC	♦ SOD
2N458A	♦△TII	119 - 81
	♦ DEL	♦ ETC
	KSC	♦ MOTA
	♦ SOD	TIIB
2N458B	♦△TII	119 - 82
	♦ DEL	♦ ETC
	KSC	♦ SOD
JAN2N458B	SOD	122 - 93
	TII	
2N459	♦ ETC	118 - 66
	KSC	♦ MOTA 165 - 70
2N459A	♦ ETC	119 - 83
		♦ MOTA
2N460	♦ ETC	54 - 34
	ITC	♦ MOTA
2N461	♦△MOTA	54 - 52
	♦ ETC	♦ GESY
	GIC	ITC
JAN2N461	GESY	54 -108
	MOTA	
JAN2N463	none	117 - 15
2N464	♦ ETC	52 - 25
	♦ GIC	ITC
		♦ MOTA
JAN2N464	none	49 - 68
2N465	♦ ETC	52 - 26
	♦ GIC	ITC
		♦ MOTA
JAN2N465	MOTA	49 - 71
2N466	♦ ETC	52 - 28
	GIC	ITC
		♦ MOTA
JAN2N466M	GIC	49 - 72
	MOTA	
2N467	♦ ETC	52 - 35
	♦ GIC	ITC
		♦ MOTA
JAN2N467	MOTA	49 - 84
2N470	♦△TEC	77 - 34
	♦ ETC	SCA
		TII
2N471	♦△TEC	77 - 35
	♦ ETC	SCA
		TII
2N471A	♦△TEC	77 - 36
		♦ ETC
2N472	♦△TEC	77 - 37
	♦ ETC	SCA
		TII
2N472A	♦△TEC	77 - 38
	♦ ETC	SCA
2N473	♦△TEC	77 - 39
	♦ ETC	SCA
		TII
2N474	♦△TEC	77 - 40
	♦ ETC	SCA
		TII
2N474A	♦△TEC	77 - 41
		♦ ETC
2N475	♦△TEC	77 - 42

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TYPE No.	MFRS	Pg&Line
2N475		
(cont.)	♦ ETC	
	SCA	TII
2N475A	♦△TEC	77 - 43
	♦ ETC	SCA
2N476	♦△TEC	77 - 48
	ETC	SCA
		TII
2N477	♦△TEC	77 - 49
	ETC	SCA
		TII
2N478	♦△TEC	77 - 50
	♦ ETC	♦ GESY
	SCA	TII
2N479	♦△TEC	77 - 51
	♦ ETC	♦ GESY
	SCA	TII
2N479A	♦△TEC	77 - 44
	♦ ETC	GESY
2N480	♦△TEC	77 - 52
	♦ ETC	♦ GESY
	SCA	TII
2N480A	♦△TEC	77 - 45
	♦ ETC	GESY
2N481	♦ ETC	50 - 56
		ITC
2N482	♦ ETC	50 - 69
		ITC
2N483	♦ ETC	50 - 98
	GIC	ITC
2N484	♦ ETC	51 - 13
		ITC
2N485	♦ ETC	50 -108
		ITC
2N486	♦ ETC	51 - 23
		ITC
2N489	♦△GESY	187 - 71
	SSI	♦ TII
		TIIB
2N489A	♦△GESY	187 - 72
	SSI	♦ TII
		TIIB
JAN2N489A	GESY	187 - 73
	TII	
2N489B	♦△GESY	187 - 74
	SSI	♦ TII
		TIIB
2N490	♦△GESY	187 - 75
	SSI	♦ TII
		TIIB
JAN2N490A	GESY	187 - 77
	TII	
2N490B	♦△GESY	187 - 78
	SSI	♦ TII
		TIIB
2N490C	♦△GESY	187 - 79
		SSI
2N491	♦△GESY	187 - 80
	SSI	♦ TII
		TIIB
2N491A	♦△GESY	187 - 81
	♦ TII	TIIB
JAN2N491A	GESY	187 - 82
	TII	
2N491B	♦△GESY	187 - 83
	SSI	♦ TII
		TIIB
2N492	♦△GESY	187 - 84
	SSI	♦ TII
		TIIB
2N492A	♦△GESY	187 - 85
	SSI	♦ TII
		TIIB
JAN2N492A	GESY	187 - 86
	TII	
2N492B	♦△GESY	187 - 87
	SSI	♦ TII
		TIIB
2N492C	♦△GESY	187 - 88
		SSI
2N493	♦△GESY	187 - 89
	SSI	♦ TII
		TIIB
2N493A	♦△GESY	187 - 90
	SSI	♦ TII
		TIIB
JAN2N493A	GESY	187 - 91
	TII	
2N493B	♦△GESY	187 - 92
	SSI	♦ TII
		TIIB
2N494	♦△GESY	187 - 93
	SSI	♦ TII
		TIIB
2N494A	♦△GESY	187 - 94
	SOIF	SSI
	♦ TII	TIIB
JAN2N494A	GESY	187 - 95
	TII	
2N494B	♦△GESY	187 - 96
	SOIF	SSI
	♦ TII	TIIB
2N494C	♦△GESY	187 - 97
	SOIF	SSI
		TII
2N495	SPR	60 -100
2N496	SPR	60 - 94
2N497	♦△TII	133 - 21
	ETC	♦ FSC
	♦ GESY	ITC

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TYPE No.	MFRS	Pg&Line
2N497		
(cont.)	MST	
PHIN	♦RAYN	
♦RCA	SES	
♦SIL	SSI	
TADI	♦TEC	
TIIB	TIIF	
	VALG	
JAN2N497	GESY	99-110
TEC	TII	
2N497A	♦△GESY	133-103
ETC	SCA	
SSI	TADI	
TEC	TII	
2N498	♦△TII	133-22
ETC	♦FSC	
♦GESY	ITC	
MST	PHIN	
♦RAYN	SES	
♦SIL	SSI	
TADI	♦TEC	
TIIB	TIIF	
JAN2N498	GESY	100-1
TEC	TII	
2N498A	♦△GESY	133-104
ETC	SCA	
SSI	TADI	
TEC	TII	
2N499	♦ETC	43-50
♦MOTA	♦SPR	
JAN2N499	MOTA	44-35
	SPR	
2N499A	♦ETC	44-108
♦MOTA	SPR	
JAN2N499A	MOTA	44-109
	SPR	
2N501	♦ETC	44-93
MOTA	♦SPR	171-13
2N501A	♦ETC	44-94
MOTA	♦SPR	171-14
JAN2N501A	MOTA	44-65
	SPR	160-15
2N502	♦ETC	45-10
♦MOTA	♦SPR	
2N502A	♦ETC	45-81
♦MOTA	♦SPR	
JAN2N502A	MOTA	45-96
SPR	TII	
2N502B	♦ETC	45-57
♦MOTA	SPR	
JAN2N502B	MOTA	45-97
SPR	TII	
2N503	♦ETC	43-31
	♦SPR	
2N504	♦ETC	44-11
	♦SPR	
2N505	ETC	48-107
2N506	♦ETC	43-99
2N507	♦ETC	57-10
2N508	♦△GESY	53-59
♦ETC	GIC	
ITC	♦MOTA	
	TII	
2N508A	♦△GESY	53-85
♦ETC	♦MOTA	
2N511	♦△TII	122-94
♦ETC	IDC	
♦SOD	TIIB	
2N511A	♦△TII	122-95
♦ETC	♦SOD	
	TIIB	
2N511B	♦△TII	122-96
♦ETC	♦SOD	
	TIIB	
2N512	♦△TII	122-97
♦ETC	♦SOD	
	TIIB	
2N512A	♦△TII	122-98
♦ETC	♦SOD	
	TIIB	
2N512B	♦△TII	122-99
♦ETC	♦SOD	
	TIIB	
2N513	♦△TII	122-100
♦ETC	♦SOD	
	TIIB	
2N513A	♦△TII	122-101
♦ETC	♦SOD	
	TIIB	
2N513B	♦△TII	122-102
♦ETC	♦SOD	
	TIIB	
2N514	♦△TII	122-103
♦ETC	♦SOD	
	TIIB	
2N514A	♦△TII	122-104
♦ETC	♦SOD	
	TIIB	
2N514B	♦△TII	122-105
♦ETC	♦SOD	
	TIIB	
2N515	♦ETC	57-19
2N516	♦ETC	57-20
2N517	♦ETC	57-21
2N518	ETC	51-20
2N519	△GIC	53-37
♦ETC	♦ITC	
2N519A	△ITC	49-73
CNS	♦ETC	
GIC	MST	
2N520	△GIC	50-57
♦ETC	♦ITC	
	TII	
2N520A	△GIC	50-58
CNS	♦ETC	
ITC	MST	
	TII	
2N521	△GIC	51-2
♦ETC	♦ITC	
2N521A	△GIC	51-3
CNS	♦ETC	
ITC	MST	
	TII	
2N522	△GIC	54-2
♦ETC	♦ITC	
2N522A	△GIC	51-29
CNS	♦ETC	
ITC	MST	
	TII	
2N523	△GIC	54-3
♦ETC	♦ITC	
2N523A	△GIC	51-38
♦ETC	ITC	
	MST	
2N524	♦△GESY	54-56
CNS	♦ETC	
ITC	♦MOTA	
MST	♦NPC	
PHIN	♦TII	
TIIF	VALG	
2N524A	♦△MOTA	54-57
	ETC	
2N525	♦△GESY	54-58
CNS	ESMF	
♦ETC	ITC	
MISI	♦MOTA	
MST	♦NPC	
PHIN	♦TII	
TIIF	VALG	
2N525A	♦△MOTA	54-59
	ETC	
2N526	♦△GESY	54-60
CNS	ESMF	
♦ETC	ITC	
MISI	♦MOTA	
MST	♦NPC	
PHIN	♦TII	
TIIF	VALG	
JAN2N526	GESY	54-61
	MOTA	
2N526A	♦△MOTA	54-62
	ETC	
2N527	♦△GESY	54-63
ESMF	♦ETC	
ITC	MISI	
♦MOTA	MST	
♦NPC	PHIN	
♦TII	TIIF	
	VALG	
2N527A	♦△MOTA	54-64
	ETC	
2N529	♦ETC	50-48
2N530	♦ETC	50-59
2N531	♦ETC	50-70
2N532	♦ETC	50-78
2N533	♦ETC	50-84
2N534	NSC	43-18
2N535	ETC	47-15
2N535A	ETC	47-16
2N535B	ETC	47-17
2N536	ETC	47-18
JAN2N537	none	54-71
2N538	♦△SOD	115-104
	♦KSC	
2N538A	♦△SOD	115-105
	♦KSC	
2N539	♦△SOD	115-106
	♦KSC	
JAN2N539	KSC	115-102
	SOD	
2N539A	♦△SOD	115-107
	♦KSC	
JAN2N539A	KSC	115-103
	SOD	
JAN2N539AM	KSC	115-108
	SOD	
JAN2N539M	KSC	115-109
	SOD	
2N540	♦△SOD	115-110
	♦KSC	
2N540A	♦△SOD	116-1
	♦KSC	
2N541	♦△TEC	77-62
♦ETC	♦GESY	
SCA	SSI	
	TII	
2N542	♦△TEC	77-63
♦ETC	♦GESY	
SCA	SSI	
	TII	
2N542A	♦△TEC	77-46
♦ETC	GESY	
	SSI	
2N543	♦△TEC	77-64
♦ETC	♦GESY	
SCA	SSI	
	TII	
2N543A	♦△TEC	77-47
♦ETC	GESY	
	SSI	
2N545	♦△TEC	96-110
ETC	SCA	161-16
SSI	♦SSP	
JAN2N545	TEC	97-1
		161-17
2N546	♦△TEC	97-2
ETC	SCA	161-18
SSI	♦SSP	
2N547	♦△TEC	97-32
♦ETC	SCA	
♦SIL	SSI	
	♦SSP	
2N548	♦△TEC	97-33
♦ETC	SCA	
♦SIL	SSI	
	♦SSP	
2N549	♦△TEC	97-34
♦ETC	SCA	
♦SIL	SSI	
	♦SSP	
2N550	♦△TEC	97-35
♦ETC	SCA	
♦SIL	SSI	
2N551	♦△TEC	97-29
♦ETC	♦ITC	
SCA	♦SIL	
SSI	♦SSP	
2N552	♦△TEC	97-30
♦ETC	ITC	
SCA	♦SIL	
	SSI	
2N553	♦ETC	116-24
KSC	MOTA	
	♦SOD	
2N554	♦△MOTA	119-84
♦DEL	♦ETC	
KSC	SOD	
2N555	♦△MOTA	119-85
♦ETC	KSC	
	SOD	
2N556	ETC	57-61
2N557	♦ETC	57-62
2N558	ETC	57-63
JAN2N559	none	51-75
		180-84
2N560	♦ETC	94-107
♦NSC	SCA	169-80
SSI	TADI	
JAN2N560	NSC	94-72
		160-67
2N561	♦ETC	118-10
KSC	SOD	
2N563	ETC	49-90
2N564	ETC	49-91
	ITC	
2N565	ETC	49-103
2N566	ETC	49-104
	ITC	
2N567	ETC	57-11
2N568	ETC	50-24
	ITC	
2N569	ETC	50-34
2N570	ETC	50-35
	ITC	
2N571	ETC	50-60
	GIC	
2N572	ETC	50-61
GIC	ITC	
2N573	ETC	52-86
2N574	♦△SOD	123-90
JAN2N574	SOD	123-91
2N574A	♦△SOD	123-92
2N575	♦△SOD	123-93
JAN2N575	SOD	123-94
2N575A	△SOD	123-95
JAN2N575A	SOD	123-96
2N576	♦ETC	58-110
		165-105
2N576A	♦ETC	59-1
		165-104
2N578	♦ETC	48-19
GIC	ITC	165-64
2N579	♦ETC	48-29
♦GIC	ITC	165-96
2N580	♦ETC	48-44
	ITC	166-88
2N581	♦△RCA	51-4
♦ETC	GIC	165-106
ITC	TII	
2N582	♦△RCA	51-34
♦ETC	♦GIC	166-110
ITC	TII	
2N583	ETC	48-30
		165-107
2N584	♦ETC	48-45
		167-1
2N585	♦△RCA	57-97
♦ETC	♦GIC	165-55
2N586	♦△RCA	54-85
	♦ETC	
2N587	♦ETC	58-103
	TII	
2N588	♦ETC	43-51
	♦SPR	
2N589	♦ETC	119-86
2N591	♦△RCA	43-100
	ETC	
2N594	♦TII	181-15
2N595	♦TII	181-16
2N596	IDC	181-17
	♦TII	
2N597	CNS	55-12
♦ETC	♦GIC	
	ITC	
2N598	CNS	55-19
♦ETC	♦GIC	166-12
	ITC	
JAN2N598	GIC	55-14
2N599	CNS	55-20
♦ETC	♦GIC	166-4
	ITC	
JAN2N599	GIC	55-21
		166-5
2N600	GIC	56-47
		165-94
JAN2N600	GIC	56-46
2N601	GIC	56-43
	IDC	166-6
JAN2N604M	none	48-61
		170-30
2N609	♦ETC	52-73
2N610	♦ETC	52-66
2N611	♦ETC	52-60
2N612	♦ETC	52-53
2N613	♦ETC	52-55
2N614	♦ETC	48-102
2N615	♦ETC	48-104
2N616	♦ETC	48-108
2N617	♦ETC	48-106
2N618	♦△MOTA	119-87
♦ETC	KSC	
	♦SOD	
2N619	SCA	82-17
2N620	SCA	82-18
2N621	SCA	82-19
2N622	SCA	72-1
2N627	♦△MOTA	119-88
♦ETC	IDC	
KSC	SOD	
2N628	♦△MOTA	119-89
♦ETC	KSC	
	SOD	
2N629	♦△MOTA	119-90
♦ETC	KSC	
	SOD	
2N630	♦△MOTA	119-91
♦ETC	KSC	
	SOD	
2N631	♦ETC	52-37
	ITC	
2N632	♦ETC	52-34
GIC	ITC	
2N633	♦ETC	52-29
	ITC	
2N634	♦ETC	58-70
2N634A	♦ETC	58-71
GIC	TII	
2N635	♦ETC	58-80
2N635A	♦ETC	58-81
GIC	TII	
2N636	♦ETC	58-88
2N636A	♦ETC	58-89
	TII	
2N637	♦△SOD	116-25
♦ETC	IDC	161-105
	KSC	
2N637A	♦△SOD	116-26
♦ETC	KSC	161-106
2N637B	△SOD	116-27
♦ETC	KSC	161-107
2N638	♦△SOD	116-28
♦ETC	KSC	161-108
2N638A	♦△SOD	116-29
♦ETC	KSC	161-109
2N638B	♦△SOD	116-30
♦ETC	KSC	161-110
2N639	♦ETC	116-31
	KSC	162-1
2N639A	♦ETC	116-32
	KSC	162-2
2N639B	♦ETC	116-33
	KSC	162-3
2N647	♦△RCA	57-64
ATEI	ETC	
2N649	♦△RCA	57-65
	ETC	
2N650	♦△MOTA	53-38
♦ETC	ITC	
2N650A	♦△MOTA	52-101
ETC	MST	
	TII	
JAN2N650A	MOTA	52-102
2N651	♦△MOTA	53-51
♦ETC	GIC	
ITC	MST	
2N651A	♦△MOTA	53-11
ETC	GIC	
MST	TII	
JAN2N651A	MOTA	53-12
2N652	♦△MOTA	53-60
CNS	♦ETC	
GIC	ITC	
	MST	
2N652A	♦△MOTA	53-26
♦ETC	GIC	
MST	TII	
JAN2N652A	MOTA	53-27
2N653	♦△MOTA	53-39
♦ETC	ITC	
	MST	
2N654	♦△MOTA	53-52
♦ETC	GIC	
ITC	MST	
2N655	♦△MOTA	53-61
♦ETC	GIC	
ITC	MST	
2N656	♦△TII	133-23
♦ETC	♦FSC	
♦GESY	ITC	
♦MOTA	MST	
PHIN	♦RAYN	
RCA	SES	
SIL	SSI	
TADI	♦TEC	

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TYPE No.	MFRS	Pg&Line
2N656		
(cont.)	TIIB	
TIIF	♦TRW	
	VALG	
JAN2N656	GESY	100-2
TEC	TII	
2N656A	♦△GESY	133-105
♦ETC	SCA	
SIL	SSI	
TADI	TEC	
	TII	
2N657	♦△TII	133-24
♦ETC	♦FSC	
♦GESY	ITC	
♦MOTA	MST	
PHIN	♦RAYN	
SES	♦SIL	
SSI	TADI	
♦TEC	TIIB	
TIIF	♦TRW	
JAN2N657	GESY	100-3
TEC	TII	
2N657A	♦△GESY	133-106
♦ETC	SCA	
♦SIL	SSI	
TADI	TEC	
	TII	
2N658	♦ETC	54-9
ITC	MST	165-49
RAYI	♦TII	
2N659	♦ETC	54-11
GIC	ITC	166-3
MST	RAYI	
	♦TII	
2N660	♦ETC	54-12
ITC	MST	166-75
RAYI	♦TII	
2N661	♦ETC	54-13
ITC	MST	167-5
RAYI	♦TII	
2N662	♦ETC	54-10
ITC	MST	165-91
RAYI	♦TII	
2N663	♦ETC	116-34
KSC	SOD	
2N665	♦ETC	116-35
KSC	MOTA	
	♦SOD	
JAN2N665	KSC	116-36
	MOTA	
2N669	♦△MOTA	119-92
♦DEL	♦ETC	
KSC	SOD	
2N672	♦ETC	55-60
2N677	♦△SOD	113-72
♦ETC	KSC	
2N677A	♦△SOD	113-73
♦ETC	KSC	
2N677B	♦△SOD	113-74
♦ETC	KSC	
2N677C	♦△SOD	113-75
♦ETC	KSC	
2N678	♦△SOD	113-76
♦ETC	KSC	
2N678A	♦△SOD	113-77
♦ETC	KSC	
2N678B	♦△SOD	113-78
♦ETC	KSC	
2N678C	♦△SOD	113-79
	KSC	
2N679	♦ETC	58-33
		164-104
2N680	♦ETC	49-33
JAN2N695	none	45-58
		160-87
2N696	♦△FSC	98-7
♦CDC	CNS	170-74
ESMF	♦ETC	
FERB	♦GIC	
HUGS	♦ITC	
♦ITT	MINA	
MISI	♦MOTA	
MST	MULB	
♦NPC	NSC	
NTLB	PHIC	
PHIN	RADF	
♦RAYN	SES	
TADI	♦TEC	
♦TII	TIIB	
TIIF	♦TRW	
UEHK	VALG	
JAN2N696	CDC	97-63
	TII	170-14
2N696A	SCA	100-23
		169-16
2N697	♦△FSC	98-12
BNT	♦CDC	170-98
ESMF	♦ETC	
FERB	♦GIC	
HSC	HUGS	
IDC	♦ITC	
♦ITT	LTTF	
MINA	MISI	
♦MOTA	MST	
MULB	♦NPC	
♦NSC	NTLB	
PHIC	PHIN	
RADF	♦RAYN	
♦RCA	♦SES	
TADI	♦TEC	
♦TII	TIIB	
TIIF	♦TRW	
UEHK	VALG	

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TYPE No.	MFRS	Pg&Line
JAN2N697	CDC	97-105
	TII	170- 60
2N697A	ETC	100- 53
MST	SCA	170- 13
TADI	♦ TRW	
2N698	♦△FSC	100- 24
♦ CDC	ESMF	
♦ GIC	HUGS	
♦ ITC	MISI	
MST	NPC	
PHIN	RADF	
RAYN	SES	
TADI	♦ TEC	
♦ TII	TIIB	
TIIF	♦ TRW	
2N699	♦△FSC	97- 64
♦ CDC	ESMF	
♦ ETC	♦ GIC	
HUGS	♦ ITC	
MISI	♦ MOTA	
MST	NPC	
NSC	PHIN	
RADF	♦ RAYN	
♦ RCA	SES	
TADI	♦ TEC	
♦ TII	TIIB	
TIIF	♦ TRW	
2N699A	♦ ETC	100- 54
MST	RAYN	
SCA	TADI	
	♦ TRW	
2N699B	♦△FSC	103- 5
ETC	MST	
RAYN	SES	
TADI	♦ TRW	
2N700	♦△MOTA	45- 99
	IDC	
2N700A	♦△MOTA	45-100
JAN2N700A	MOTA	45-101
2N702	△TII	85- 64
CNS	ETC	
♦ MOTA	♦ NSC	
SCA	TADI	
	TEK	
JAN2N702	NSC	85- 2
	TII	
2N703	△TII	85- 65
CNS	ETC	
♦ FSC	♦ MOTA	
NSC	TADI	
	TEK	
JAN2N703	MOTA	85- 3
NSC	TII	
2N705	♦△TII	55- 83
♦ MOTA	PHIN	177- 55
♦ SES	TIIB	
	TIIF	
JAN2N705	MOTA	49- 34
	TII	160- 88
2N705A	♦ SES	51- 76
2N706	♦△FSC	87- 46
♦ CDC	CNS	177- 77
ESMF	♦ ETC	
FERB	♦ GIC	
HUGS	IDC	
INTG	♦ ITT	
MINA	MISI	
♦ MOTA	MST	
MULB	♦ NPC	
NSC	NTLB	
PHIC	RADF	
RAYN	SES	
SGSI	STCB	
TADI	♦ TEC	
TEK	TFKG	
TII	TIIB	
TIIF	VALG	
JAN2N706	APX	86- 20
CDC	FSC	173-110
GIC	ITT	
MOTA	RAYN	
TEC	TII	
2N706/46	SCA	93-109
		173- 59
2N706/TNT	TEC	73- 4
2N706A	♦△TII	86- 21
BELI	♦ CDC	180- 42
CNS	ESMF	
♦ ETC	FERB	
♦ GIC	HUGS	
INTG	♦ ITT	
MINA	MISI	
♦ MOTA	MST	
MULB	♦ NPC	
NTLB	RADF	
♦ RAYN	SES	
SGSI	STCB	
TADI	♦ TEC	
TIIB	TIIF	
	VALG	
2N706B46	SCA	94- 19
2N706B	♦△MOTA	87- 68
CNS	ETC	178- 87
♦ GIC	HUGS	
♦ ITT	MINA	
♦ RAYN	SES	
SGSI	TADI	
TEC	TII	
TIIB	TIIF	
2N706C	CNS	92- 25
ETC	RAYN	177- 84
2N707	♦ ETC	87- 69
HUGS	♦ MOTA	
	♦ TRW	

TYPE No.	MFRS	Pg&Line
2N707A	♦ ETC	95- 55
♦ MOTA	SCA	
	TEK	
2N708	♦△FSC	92- 78
BELI	CDC	179- 43
CNS	ECD	
ESMF	♦ ETC	
FERB	♦ GIC	
HUGS	INTG	
♦ ITT	LTTF	
MINA	MISI	
♦ MOTA	MST	
MULB	♦ NPC	
NSC	NTLB	
PHIC	PHIN	
RADF	♦ RAYN	
SES	SGSI	
TADI	TEC	
♦ TII	TFKG	
TIIF	♦ TRW	
JAN2N708	ITT	91- 97
	MOTA	177- 20
2N708/TNT	TEC	73- 10
2N708A	IDC	91- 98
2N709	♦△FSC	88- 9
♦ ECD	♦ ETC	180- 46
FERB	MULB	
NTLB	PHIC	
RADF	♦ RAYN	
♦ RCA	SGSI	
TADI	♦ TEC	
♦ TII	TIIF	
	VALG	
2N709/46	SCA	94- 35
		180- 86
2N709/TNT	TEC	73- 14
2N709A46	SCA	94- 29
		180- 79
2N709A	♦ ECD	88- 10
MULB	TADI	180- 47
♦ TEC	VALG	
2N710	♦△TII	55- 84
MOTA	♦ SES	177- 56
	TIIF	
2N710A	♦ SES	49- 35
		160- 89
2N711	♦△TII	55- 85
♦ MOTA	MULB	177- 67
PHIN	♦ SES	
TIIB	TIIF	
2N711A	♦△TII	51- 55
♦ MOTA	NPC	172-107
♦ SES	TIIB	
	TIIF	
2N711B	♦△TII	51- 56
♦ MOTA	♦ SES	172-108
TIIB	TIIF	
2N715	ETC	95- 56
SCA	TII	
	TIIB	
2N716	△TII	95- 57
ETC	SCA	
	TIIB	
2N717	♦△FSC	93- 66
♦ CDC	CNS	170- 75
ESMF	♦ ETC	
GIC	HUGS	
ITT	MINA	
MST	♦ RAYN	
SES	SGSI	
TADI	♦ TEC	
♦ TII	TIIB	
TIIF	♦ TRW	
	VALG	
2N717A	HUGS	103- 36
		173- 72
2N718	♦△FSC	93- 68
AML	♦ CDC	170- 99
CNS	ESMF	
♦ ETC	GIC	
HSC	HUGS	
♦ ITC	♦ ITT	
MINA	♦ MOTA	
MST	♦ NSC	
♦ RAYN	SES	
SGSI	TADI	
♦ TEC	♦ TII	
TIIB	TIIF	
♦ TRW	VALG	
2N718A	♦△FSC	95- 28
AML	♦ CDC	
ESMF	♦ ETC	
GIC	HSC	
HUGS	LTTF	
MINA	♦ MOTA	
♦ RAYN	♦ RCA	
SES	SGSI	
TADI	TEC	
♦ TII	TIIB	
TIIF	♦ TRW	
	VALG	
JAN2N718A	AML	95- 29
CDC	FSC	
MOTA	RAYN	
TII	TRW	
2N719	♦△FSC	93- 39
♦ CDC	ESMF	
♦ ETC	GIC	
HUGS	♦ ITC	
MST	RAYN	
SES	SGSI	
TADI	TEC	

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TYPE No.	MFRS	Pg&Line
2N719		
(cont.)	♦ TII	
TIIB	TIIF	
2N719A	♦△FSC	94-100
ESMF	♦ ETC	
HUGS	SES	
SGSI	TADI	
♦ TII	TIIB	
	TIIF	
2N720	♦△FSC	93- 41
AML	♦ CDC	
ESMF	♦ ETC	
GIC	HUGS	
MST	♦ RAYN	
SES	SGSI	
TADI	TEC	
♦ TII	TIIB	
TIIF	♦ TRW	
2N720A	♦△FSC	95- 61
♦ CDC	ESMF	
♦ ETC	GIC	
HUGS	♦ MOTA	
♦ RAYN	♦ RCA	
SES	SGSI	
TADI	TEC	
♦ TII	TIIB	
TIIF	♦ TRW	
JAN2N720A	CDC	95- 30
	TII	
2N721	♦△FSC	68-104
ETC	GIC	
HUGS	♦ MOTA	
♦ RAYN	SGSI	
TADI	♦ TEC	
TII	TIIB	
	TIIF	
2N721A	♦ RAYN	68-105
	TADI	
2N722	♦△FSC	69- 4
♦ ETC	GIC	
HUGS	ITT	
♦ MOTA	♦ NPC	
NSC	♦ RAYN	
SGSI	TADI	
♦ TEC	TII	
TIIB	TIIF	
2N722A	♦ RAYN	69- 22
TADI	TEC	
2N726	♦△TII	64- 37
ETC	HUGS	
SCA	TADI	
TEC	TIIB	
	TIIF	
2N727	♦△TII	64- 38
ETC	FERB	
SCA	TADI	
TEC	TIIB	
	TIIF	
2N730	♦△TII	94-101
CDC	♦ ETC	167- 10
MST	RAYN	
TADI	♦ TEC	
TIIB	TIIF	
2N731	♦△TII	94-108
CDC	♦ ETC	167- 28
LTTF	MOTA	
MST	RAYN	
TADI	♦ TEC	
TIIB	TIIF	
2N734	♦ ETC	94- 73
RADF	SCA	
TADI	♦ TEC	
	TIIF	
2N735	♦△TII	94- 74
♦ ETC	LTTF	
♦ MOTA	SCA	
♦ SOD	TADI	
♦ TEC	TIIF	
	♦ TRW	
2N735A	♦△SOD	95- 31
♦ ETC	MISI	
	TADI	
2N736	♦△TII	94- 75
♦ ETC	LTTF	
♦ MOTA	SCA	
TADI	♦ TEC	
TIIF	♦ TRW	
2N736A	♦△TII	95- 73
♦ ETC	LTTF	
♦ SOD	TADI	
	TIIF	
2N736B	♦△SOD	95- 74
♦ ETC	MISI	
2N738	△TII	94- 76
♦ ETC	SCA	
♦ TEC	TIIB	
	TIIF	
2N739	♦△TII	94- 77
♦ ETC	♦ MOTA	
SCA	SOD	
♦ TEC	TIIB	
	TIIF	
2N739A	♦△SOD	95- 32
	♦ ETC	
2N740	♦△TII	94- 78
♦ ETC	♦ MOTA	
SCA	SOD	
♦ TEC	TIIB	
	TIIF	
2N740A	♦△SOD	95- 75
	♦ ETC	
2N741	♦△MOTA	51-101
2N741A	♦△MOTA	51-102

TYPE No.	MFRS	Pg&Line
2N742	♦ ETC	94- 79
NSC	SCA	
	TADI	
2N742A	ETC	94- 80
SCA	TADI	
2N743	♦△TII	87- 70
BELI	ESMF	178- 41
ETC	♦ FSC	
♦ GIC	HUGS	
INTG	♦ ITT	
MINA	MISI	
♦ MOTA	MULB	
PHIC	PHIN	
RADF	RAYN	
SES	SGSI	
STCB	TADI	
TEC	TIIB	
TIIF	VALG	
2N743A	RAYN	92- 81
	SCA	179- 46
2N744	♦△TII	87- 71
BELI	CDC	178- 39
ESMF	ETC	
♦ FSC	♦ GIC	
HUGS	INTG	
♦ ITT	MINA	
MISI	♦ MOTA	
MULB	NSC	
PHIC	PHIN	
RADF	♦ RAYN	
SES	SGSI	
STCB	TADI	
TEC	TIIB	
TIIF	VALG	
JAN2N744	FSC	86- 93
	TII	176- 71
2N744A	RAYN	92- 82
	SCA	179- 47
2N752	ETC	96- 18
	SCA	
2N753	♦△TII	87- 72
BELI	CDC	180- 43
CNS	ESMF	
♦ ETC	FERB	
♦ FSC	♦ GIC	
HUGS	♦ ITT	
MINA	MISI	
♦ MOTA	MULB	
NSC	PHIC	
SES	SGSI	
STCB	TADI	
TEC	TIIB	
TIIF	VALG	
2N753/46	SCA	93-110
2N754	♦△TEC	83-101
♦ ETC	SCA	
2N755	♦△TEC	83-102
♦ ETC	SCA	
2N756	ETC	94-109
MST	SCA	
	♦ TEC	
2N756A	ETC	95- 76
	SCA	
2N757	ETC	94-110
ITC	MST	
SCA	♦ TEC	
2N757A	ETC	95- 77
	SCA	
JAN2N757A	none	95- 33
2N758	ETC	95- 1
ITC	MST	
SCA	♦ TEC	
2N758A	ETC	95- 78
SCA	SOD	
	♦ TEC	
2N758B	♦△SOD	95- 2
2N759	♦△NSC	95- 3
ETC	ITC	
MST	SOD	
TADI	♦ TEC	
	♦ TII	
2N759A	♦△NSC	95- 79
ETC	SCA	
SOD	TADI	
♦ TEC	♦ TII	
JAN2N759A	SOD	95- 34
	TII	
2N759B	♦△SOD	95- 4
	ETC	
2N760	♦△NSC	95- 5
♦ AML	CDC	
ETC	ITC	
ITT	MST	
♦ RAYN	SGSI	
SOD	TADI	
♦ TEC	♦ TII	
2N760A	♦△NSC	95- 80
♦ AML	CDC	
ETC	ITT	
♦ RAYN	SOD	
TADI	♦ TEC	
	♦ TII	
JAN2N760A	AML	95- 35
NSC	SOD	
	TII	
2N760B	♦△SOD	95- 6
ETC	SCA	
2N761	ETC	95- 81
ITC	MST	
2N762	ETC	95- 82
MOTA	MST	
	TADI	
2N768	♦ SPR	43- 65

TYPE No.	MFRS	Pg&Line
2N769	♦ SPR	43- 66
		180- 74
2N779A	MOTA	45- 11
	♦ SPR	179- 29
2N780	♦△TII	84- 74
	♦ ETC	
2N782	♦ SES	49- 36
		160- 90
2N783	♦ ETC	86- 22
♦ FSC	ITT	173- 70
RAYN	SES	
	SGSI	
2N784	♦ ETC	86- 23
♦ ITT	MINA	173- 73
RAYN	SES	
	SGSI	
2N784A	♦ ETC	91- 99
MINA	RAYN	176- 93
2N794	♦ SPR	51- 42
		169- 15
2N795	♦ SPR	51- 46
		170- 44
2N796	♦ SPR	51- 49
		170- 94
2N797	♦△TII	58- 90
	TIIB	180- 81
2N821	GIC	57- 58
		72- 44
		166- 14
2N827	♦△MOTA	51- 64
2N828	△MOTA	51- 77
	♦ SES	179- 1
2N828A	♦△MOTA	51-104
2N829	♦△MOTA	51- 78
		177- 42
2N834	♦△MOTA	87- 94
♦ CDC	ESMF	179- 77
ETC	♦ FSC	
♦ GIC	HSC	
IDC	♦ ITT	
RAYN	SES	
SGSI	♦ TEC	
2N834A	ITT	92- 83
RAYN	SGSI	179- 78
2N835	♦△MOTA	87- 91
ETC	♦ FSC	179- 35
♦ GIC	HSC	
♦ ITT	RAYN	
SES	SGSI	
	♦ TEC	
2N837	△SES	49- 37
		160- 36
2N838	♦△MOTA	51- 79
2N839	♦△TEC	83-103
♦ CDC	♦ ETC	
2N840	♦△TEC	83-104
♦ CDC	♦ ETC	
♦ MOTA	SCA	
2N841	♦△TEC	84- 24
♦ CDC	♦ ETC	
	♦ MOTA	
2N842	♦△TEC	83-105
ETC	SCA	
2N843	♦△TEC	84- 25
ETC	SCA	
2N844	♦△TEC	84- 48
	SCA	
2N845	♦△TEC	84- 49
	SCA	
2N846A	♦ SPR	45- 12
		179- 30
2N849	♦△TII	87-104
SCA	TIIF	
2N850	♦△TII	87-105
SCA	TIIF	
2N851	♦△TII	88- 15
SCA	TIIB	
	TIIF	
2N852	♦△TII	88- 16
SCA	TIIB	
	TIIF	
2N858	♦ CRY	61- 5
♦ SPR	SSI	166- 71
	TADI	
2N859	♦ CRY	61- 6
♦ SPR	SSI	166- 68
	TADI	
2N860	♦ CRY	61- 7
♦ SPR	SSI	166- 69
	TADI	
2N861	♦ CRY	61- 19
♦ SPR	SSI	167- 73
	TADI	
2N862	♦ CRY	61- 8
♦ SPR	SSI	166- 70
	TADI	
2N863	♦ CRY	61- 20
♦ SPR	SSI	167- 72
	TADI	
2N864	♦ CRY	61- 21
♦ SPR	SSI	167- 71
	TADI	
2N864A	△CRY	63-100
		166-107
2N865	♦ CRY	61- 28
♦ SPR	SSI	170- 34
2N865A	△CRY	63-108
		167- 74
2N869	♦△FSC	66-109
♦ AML	ETC	
HUGS	♦ MOTA	
SSI	TADI	
	TEC	

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TYPE No.	MFRS	Pg&Line
2N869A	♦△FSC	67-105
	♦MOTA	RAYN 180-32
	SGSI	SSI
	TADI	TEC
JAN2N869A	FSC	67-88
	MOTA	180-82
2N870	♦△FSC	95-7
	♦CDC	ESMF
	♦ETC	HUGS
	RAYN	SES
	SGSI	TADI
	TEC	♦TII
		TIIB
2N871	♦△FSC	95-36
	♦CDC	ESMF
	♦ETC	HUGS
	♦RAYN	SES
	SGSI	TADI
	TEC	♦TII
	TIIB	♦TRW
2N909	ETC	93-42
	SES	SGSI
	TEC	♦TRW
2N910	♦△FSC	95-72
	AML	♦CDC
	ETC	HUGS
	♦MOTA	♦RAYN
	SES	SGSI
	TADI	TEC
	♦TII	♦TRW
JAN2N910	AML	95-37
	CDC	FSC
	RAYN	TII
2N911	♦△FSC	95-8
	AML	♦CDC
	ETC	HUGS
	♦MOTA	♦RAYN
	SES	SGSI
	TADI	TEC
	♦TII	♦TRW
JAN2N911	CDC	95-9
	FSC	RAYN
		TII
2N912	♦△FSC	95-54
	♦CDC	ETC
	HUGS	♦RAYN
	SES	SGSI
	TADI	TEC
		♦TII
JAN2N912	FSC	94-102
	RAYN	TII
2N913	HUGS	92-26
	SCA	
2N914	♦△FSC	92-79
	BELI	CNS 179-44
	ESMF	♦ETC
	HUGS	IDC
	INTG	ITT
	LTTF	MINA
	MISI	♦MOTA
	MULB	♦NPC
	NTLB	PHIC
	RADF	♦RAYN
	SES	SGSI
	STCB	TADI
	TEC	TEK
	TFKG	♦TII
	TIIB	TIIF
		VALG
JAN2N914	MOTA	91-100
		180-22
2N914/46	SCA	92-80
2N915	♦△FSC	91-52
	♦AML	CDC
	♦ETC	MINA
	MOTA	♦RAYN
	SES	SGSI
	TADI	TII
		TIIB
2N915A	♦△AML	92-84
		TADI
2N916	♦△FSC	91-101
	♦AML	CDC
	♦ETC	IDC
	LTTF	♦MOTA
	♦RAYN	SES
	TADI	♦TII
	TIIB	TRW
JAN2N916	AML	91-102
	FSC	MOTA
	RAYN	TII
		TRW
2N916A	♦△AML	92-85
	RAYN	TADI
2N916B	△AML	92-86
		TADI
2N917	♦AML	79-97
	♦CDC	ECD
	ESMF	ETC
	ITT	♦NSC
	♦RAYN	♦RCA
	SSI	TADI
	TEC	♦TII
	TIIF	♦TRW
2N917A	RAYN	79-62
	SSI	
2N918	♦△FSC	79-63
	♦AML	APX
	♦CDC	ECD
	ESMF	ETC
	FERB	INTG
	ITT	LTTF
	MISI	♦MOTA

cont.next col.

TYPE No.	MFRS	Pg&Line
2N918 (cont.)	MULB	
	♦NPC	♦NSC
	NTLB	PHIC
	RADF	♦RAYN
	♦RCA	SGSI
	SSI	STCB
	TADI	TEC
	♦TII	TIIB
	TIIF	UEHK
		VALG
JAN2N918	AML	79-64
	FSC	MOTA
	NSC	RAYN
	RCA	TEC
		TII
2N919	♦ETC	91-12
		MULB 173-82
2N920	♦ETC	91-13
		MULB 173-83
2N921	♦ETC	92-47
		178-27
2N922	♦ETC	92-48
2N923	CRY	60-65
	SOD	SSI
2N924	CRY	60-66
	SOD	SSI
2N925	CRY	60-67
	SOD	SSI
2N926	CRY	60-68
	SOD	SSI
2N927	CRY	60-69
	SOD	SSI
2N928	CRY	60-70
	SOD	SSI
2N929	♦△TII	83-106
	♦AML	CDC
	CNS	ESMF
	ETC	FERB
	♦FSC	♦GIC
	INTG	♦ITT
	MINA	MISI
	♦MOTA	MULB
	♦NSC	NTLB
	PHIC	PHIN
	RADF	♦RAYN
	SES	SGSI
	♦SOD	STCB
	TADI	♦TEC
	TIIB	TIIF
	UEHK	VALG
JAN2N929	AML	84-45
	CDC	FSC
	GIC	ITT
	MOTA	NSC
	RAYN	SOD
	TEC	TII
2N929A	△SOD	94-104
	♦AML	♦CDC
	GIC	♦MOTA
	NSC	♦RAYN
	TADI	♦TEC
	TII	TIIB
	TIIF	UEHK
2N930	♦△TII	83-107
	♦AML	CDC
	CNS	ESMF
	ETC	FERB
	♦FSC	♦GIC
	INTG	♦ITT
	MINA	MISI
	♦MOTA	MULB
	♦NPC	♦NSC
	NTLB	PHIC
	PHIN	RADF
	♦RAYN	SES
	SGSI	♦SOD
	STCB	TADI
	♦TEC	TIIB
	TIIF	UEHK
		VALG
JAN2N930	AML	85-58
	CDC	FSC
	GIC	ITT
	MOTA	NSC
	RAYN	SOD
	TEC	TII
2N930/46	SCA	93-35
2N930/TNT	TEC	72-82
2N930A	△SOD	94-105
	♦AML	♦CDC
	GIC	♦MOTA
	NSC	♦RAYN
	SCA	TADI
	♦TEC	TII
	TIIB	TIIF
		UEHK
2N930B	♦AML	94-106
		RAYN
2N935	♦△SOD	68-5
	♦CRY	SSI
	TADI	TEC
2N936	♦△SOD	68-6
	♦CRY	SSI
	TADI	TEC
2N937	♦△SOD	68-8
	♦CRY	SSI
	TADI	TEC
2N938	♦△SOD	62-44
	♦CRY	SSI
	TADI	TEC
2N939	♦△SOD	62-69
	♦CRY	SSI
	TADI	TEC

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2N940	♦△SOD	62-70
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	TADI	TEC
2N941	♦△SOD	62-94
	♦CRY	SSI 188-68
		TADI
2N942	♦△SOD	62-92
	♦CRY	SSI 188-69
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2N943	♦△SOD	62-45
	♦CRY	SSI 188-70
		TADI
2N944	♦△SOD	62-46
	♦CRY	SSI 188-71
		TADI
2N945	♦△SOD	62-47
	♦CRY	SSI 188-72
		TADI
2N946	♦△SOD	62-48
	♦CRY	SSI 188-73
		TADI
2N947		SGSI 91-14
		SSI
2N956	♦△FSC	95-108
	♦CDC	ESMF
	♦ETC	GIC
	HSC	HUGS
	♦MOTA	NSC
	♦RAYN	SES
	SGSI	TADI
	TEC	♦TII
	TIIB	♦TRW
		VALG
2N957	ETC	82-46
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		TEC
2N960	♦△MOTA	51-80
	♦SES	TII 177-43
	TIIB	TIIF
2N961	♦△MOTA	51-81
	♦SES	♦TII 177-44
	TIIB	TIIF
2N962	♦△MOTA	51-82
	♦SES	♦TII 177-45
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JAN2N962	MOTA	51-83
	TII	177-46
2N963	♦△MOTA	51-65
	♦SES	♦TII 176-40
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2N964	♦△MOTA	51-84
	♦SES	♦TII 177-47
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JAN2N964	MOTA	51-85
	TII	177-48
2N964A	♦△MOTA	51-86
	♦SES	179-39
2N965	♦△MOTA	51-87
	♦SES	♦TII 177-49
	TIIB	TIIF
2N966	♦△MOTA	51-88
	♦SES	♦TII 177-50
	TIIB	TIIF
2N967	♦△MOTA	51-66
	♦SES	♦TII 176-41
2N968	♦△MOTA	51-89
	♦SES	♦TII 177-60
2N969	♦△MOTA	51-90
	♦SES	♦TII 177-61
2N970	♦△MOTA	51-91
	♦SES	♦TII 177-68
2N971	♦△MOTA	51-92
	♦SES	♦TII 177-69
2N972	♦△MOTA	51-93
	♦SES	♦TII 177-62
2N973	♦△MOTA	51-94
	♦SES	♦TII 177-63
2N974	♦△MOTA	51-95
	♦SES	♦TII 177-64
2N975	♦△MOTA	51-96
	♦SES	♦TII 177-65
2N976	♦SPR	47-89
		SSI 175-44
2N978	♦△FSC	66-24
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		TEC
2N979	♦△SPR	44-95
		IDC 171-52
2N980	♦△SPR	44-96
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2N982	♦△SPR	45-21
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2N983	♦△SPR	45-22
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2N984	♦△SPR	45-13
		IDC 178-13
2N985	♦△TII	51-97
	♦MOTA	♦SES 177-8
2N986	♦△FSC	186-78
JAN2N986	none	186-79
2N987	♦△APX	47-33
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JAN2N987	APX	47-19
2N988	SCA	86-100
2N989	SCA	86-101
2N990	♦△APX	45-53
		PHIC
2N991		PHIC 45-54
2N992		PHIC 45-52
2N993	♦△APX	45-55
		PHIC
2N994	♦SES	52-87
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TYPE No.	MFRS	Pg&Line
2N995	♦△FSC	66-110
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	TEC	♦TII
		TIIB
2N996	♦△FSC	67-30
	SSI	TADI 173-23
		TEC
2N997	♦△TII	94-81
	♦FSC	♦GESY
	♦RAYN	SSI
	TADI	TIIF
2N998	♦△FSC	190-34
	♦AML	♦GESY
	♦MOTA	♦RAYN
	SSI	TADI
2N999	♦△FSC	190-35
	♦GESY	♦MOTA
	♦RAYN	SSI
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2N1000	♦ETC	58-67
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2N1007	♦ETC	118-11
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2N1008	♦ETC	52-20
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2N1008A	♦ETC	52-21
	ITC	♦MOTA
2N1008B	♦ETC	52-22
	ITC	♦MOTA
JAN2N1008B	MOTA	52-19
2N1010	♦ETC	57-1
2N1011	♦△SOD	117-16
	♦DEL	♦ETC
	KSC	MOTA
JAN2N1011	DEL	117-17
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2N1012	♦△GIC	58-34
	♦ETC	177-70
2N1015	♦△WESY	155-23
	♦ETC	SEN 163-19
	♦SIL	SLA
		SPC
2N1015A	♦△WESY	155-24
	♦ETC	SEN 163-20
	♦SIL	SLA
	SPC	SSI
2N1015B	♦△WESY	155-25
	♦ETC	SEN 163-21
	♦SIL	SLA
	SPC	SSI
2N1015C	♦△WESY	155-26
	♦ETC	SEN 163-22
	♦SIL	SLA
	SPC	SSI
2N1015D	♦△WESY	155-27
	♦ETC	SEN 163-23
	♦SIL	SLA
	SPC	SSI
2N1015E	♦△WESY	155-28
	SEN	♦SIL 163-24
	SLA	SPC
		SSI
2N1015F	SLA	155-29
	SPC	163-25
2N1016	♦△WESY	155-30
	♦ETC	SEN 163-26
	♦SIL	SLA
	SPC	SSI
2N1016A	♦△WESY	155-31
	♦ETC	SEN 163-27
	♦SIL	SLA
	SPC	SSI
2N1016B	♦△WESY	155-32
	♦ETC	SEN 163-28
	♦SIL	SLA
	SPC	SSI
JAN2N1016B	SIL	155-33
		WESY
2N1016C	♦△WESY	155-34
	♦ETC	SEN 163-29
	♦SIL	SLA
	SPC	SSI
JAN2N1016C	SIL	155-35
		WESY
2N1016D	♦△WESY	155-36
	♦ETC	SEN 163-30
	♦SIL	SLA
	SPC	SSI
JAN2N1016D	SIL	155-37
		WESY
2N1016E	♦△WESY	155-38
	SEN	♦SIL 163-31
	SLA	SPC
		SSI
2N1016F	SLA	155-39
	SPC	163-32
2N1017	ETC	52-46
	♦ITC	MST
2N1018	ETC	52-47
		ITC
2N1021	♦△TII	119-93
	♦DEL	♦ETC
	KSC	♦MOTA
	♦SOD	TIIB
2N1021A	♦△TII	119-94
	♦DEL	♦ETC
	KSC	♦SOD
JAN2N1021A	SOD	122-106
	TII	
2N1022	♦△TII	119-95
	♦DEL	KSC
	♦MOTA	♦SOD
		TIIB

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2N1022A	♦△TII	119-96
	♦DEL	KSC
		♦SOD
JAN2N1022A	SOD	122-107
		TII
2N1023	♦△RCA	48-74
2N1024	♦△SOD	62-49
	♦CRY	♦ETC
	NSC	♦RAYN
		TADI
2N1025	♦△SOD	62-50
	♦CRY	♦ETC
	♦RAYN	TADI
JAN2N1025M	CRY	62-51
		SOD
2N1026	♦△SOD	62-71
	♦CRY	♦ETC
	♦RAYN	TADI
2N1026A	CRY	68-37
		♦ETC
JAN2N1026M	CRY	62-72
		SOD
2N1027	♦△SOD	62-88
	♦CRY	♦ETC
		♦RAYN
2N1028	♦△SOD	62-91
	♦CRY	♦ETC
		♦RAYN
2N1029A	KSC	113-80
2N1029B	KSC	113-81
2N1029C	KSC	113-82
2N1031	♦△SOD	119-97
		♦ETC
2N1031A	♦△SOD	119-98
		♦ETC
2N1031B	♦△SOD	119-99
		♦ETC
2N1031C	♦△SOD	119-100
2N1032	♦△SOD	119-101
		♦ETC
2N1032A	♦△SOD	119-102
		♦ETC
2N1032B	♦△SOD	119-103
2N1032C	♦△SOD	119-104
2N1034	♦△RAYN	62-26
	♦CRY	ETC
	♦SOD	TADI
2N1035	♦△RAYN	62-32
	♦CRY	ETC
	♦SOD	TADI
2N1036	♦△RAYN	62-35
	♦CRY	ETC
	♦SOD	TADI
2N1037	♦△RAYN	62-33
	♦CRY	ETC
	♦SOD	TADI
2N1038	♦△TII	114-73
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	♦NPC	♦SOD
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2N1038-2	KSC	114-50
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2N1039	♦△TII	114-74
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	♦KSC	MISI
	♦MOTA	NPC
		♦SOD
JAN2N1039	KSC	55-108
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2N1039-1	KSC	114-51
	SOD	
2N1039-2	KSC	114-52
	SOD	
2N1040	♦△TII	114-75
	ESMF	♦KSC
	MISI	♦MOTA
	♦NPC	♦SOD
2N1040-1	KSC	114-53
	SOD	
2N1040-2	KSC	114-54
	SOD	
2N1041	♦△TII	114-76
	ESMF	IDC
	♦KSC	MISI
	♦MOTA	♦SOD
JAN2N1041	KSC	55-109
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2N1041-1	KSC	114-55
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2N1041-2	KSC	114-56
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2N1042	♦△TII	114-57
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		♦SOD
JAN2N1042	KSC	114-77
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2N1042-1	KSC	114-58
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2N1042-2△	KSC	114-59
2N1042-2☑	SOD	114-60
2N1043	♦△TII	114-61
	♦KSC	MOTA 163-56
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JAN2N1043	KSC	114-78
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2N1043-1	KSC	114-62
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2N1043-2△	KSC	114-63
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2N1044	♦△TII	114-65
	♦KSC	MOTA 163-57
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2N1044-2△	KSC	114- 67
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2N1045	♦△TII	114- 69
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JAN2N1045	KSC	114- 80
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2N1045-1	KSC	114- 70
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2N1045-2△	KSC	114- 71
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2N1046	♦△TII	119- 6
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JAN2N1046	TII	115- 69
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2N1046B	♦ETC	119- 8
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2N1047	♦△TII	144-100
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♦SLA	SPC	
2N1047A	♦△TII	144-101
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♦SLA	SPC	
JAN2N1047A	SIL	144- 93
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2N1047B	♦△TII	144-102
ETC	♦SIL	
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2N1048	♦△TII	144-103
♦ETC	♦SIL	
♦SLA	SPC	
2N1048A	♦△TII	144-104
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♦SLA	SPC	
JAN2N1048A	SIL	144- 94
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2N1048B	♦△TII	144-105
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♦SLA	SPC	
2N1049	♦△TII	144-106
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2N1049A	♦△TII	144-107
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♦SLA	SPC	
JAN2N1049A	SIL	144- 95
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2N1049B	♦△TII	144-108
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2N1050	♦△TII	144-109
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JAN2N1094	none	52- 1
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2N1119	♦CRY	61- 13
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TADI	♦TEC	
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♦NPC	NSC	
NTLB	PHIC	
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SGSI	SOD	
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2N1146B	♦ETC	120- 3
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	♦SOD	
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	♦TEC	
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	SOD	
2N1162A	♦△MOTA	120- 10
♦ETC	KSC	
	SOD	
2N1163	♦△MOTA	120- 11
♦ETC	KSC	
	SOD	
2N1163A	♦△MOTA	120- 12
♦ETC	SOD	
2N1164	♦△MOTA	120- 13
♦ETC	KSC	
	SOD	
2N1164A	♦△MOTA	120- 14
♦ETC	SOD	
2N1165	♦△MOTA	120- 15
♦ETC	KSC	
	SOD	
JAN2N1165	MOTA	120- 16
	SOD	
2N1165A	♦△MOTA	120- 17
♦ETC	SOD	
2N1166	♦△MOTA	120- 18
♦ETC	KSC	
	SOD	
2N1166A	♦△MOTA	120- 19
♦ETC	SOD	
2N1167	♦△MOTA	120- 20
♦ETC	KSC	
	SOD	
2N1167A	♦△MOTA	120- 21
♦ETC	SOD	
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JAN2N1173	none	59- 10
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	♦ETC	
2N1188	♦△MOTA	53- 62
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2N1189	♦△MOTA	53- 73
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	♦KSC	
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2N1204A	♦MOTA	54- 5
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	♦ETC	
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	♦ETC	
2N1208	♦△TEC	149- 21
ESMF	♦ETC	
PPC	SEN	
♦SIL	♦SLA	
SOD	SPC	
SSI	SSP	
2N1209	♦△TEC	149- 22
ESMF	ETC	
PPC	SEN	
♦SIL	♦SLA	
SOD	SPC	
SSI	SSP	
2N1210	♦△TEC	147- 75
♦ETC	SEN	
♦SIL	SLA	
♦SOD	SPC	
	SSI	
2N1211	♦△TEC	147- 76
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♦SIL	SLA	
♦SOD	SPC	
	SSI	
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SEN	♦SIL	
♦SLA	SOD	
SPC	SSI	
	SSP	
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2N1220	♦△SOD	62- 73
♦CRY	ETC	
2N1221	♦△SOD	62- 90
♦CRY	ETC	
2N1222	♦△SOD	62- 74
♦CRY	ETC	
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ETC	♦RAYN	
♦SOD	SSI	
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ETC	♦RAYN	
♦SOD	SSI	
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ETC	♦RAYN	
♦SOD	SSI	
2N1231	♦CRY	68- 35
ETC	♦RAYN	
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2N1232	♦CRY	68- 18
ETC	♦RAYN	
SOD	SSI	
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ETC	♦RAYN	
SOD	SSI	
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JAN2N1234	CRY	68- 16
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GESY	♦TEC	
2N1249	△TEC	72- 12
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♦SIL	SLA	
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	SSI	
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SGSI	SOD	
♦TEC	♦TII	
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		TEC
2N1256	HUGS	69-106
	SCA	SSI 167-99
		TEC
2N1257	HUGS	69-110
	SCA	SSI 169-72
		TEC
2N1258	HUGS	70-1
	SCA	SSI 169-73
		TEC
2N1259	HUGS	69-108
	SCA	SSI 168-97
		TEC
2N1260	SSI	149-9
		TEC
2N1261	♦△SOD	116-4
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2N1262	♦△SOD	116-5
	♦KSC	
2N1263	♦△SOD	116-6
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2N1267	♦ETC	72-41
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2N1269	♦ETC	73-98
2N1270	♦ETC	73-21
2N1271	♦ETC	73-80
2N1272	♦ETC	76-26
2N1273	△TII	54-87
♦ETC	GIC	
2N1274	♦△TII	54-88
♦ETC	GIC	
2N1275	♦△RAYN	62-27
CRY	♦ETC	
	SOD	
2N1276	♦ETC	74-80
TEC	TII	
2N1277	♦ETC	74-81
TEC	TII	
2N1278	♦ETC	74-82
TEC	TII	
2N1279	♦△GESY	74-86
♦ETC	TEC	
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2N1280	△ITC	53-90
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2N1282	△ITC	53-105
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2N1284	♦△ITC	53-91
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2N1291	♦ETC	121-100
	♦KSC	
2N1292	♦KSC	124-19
2N1293	♦ETC	121-101
	♦KSC	
2N1294	♦KSC	124-20
2N1295	♦ETC	120-22
	♦KSC	
2N1296	♦KSC	124-21
2N1297	♦ETC	121-102
	♦KSC	
2N1298	♦KSC	124-22
2N1299	ETC	58-55
2N1302	♦△TII	58-35
APX	CNS	164-93
♦ETC	MST	
MULB	♦NPC	
NTLB	PHIC	
PHIN	RADF	
♦RCA	♦SES	
TEK	TIIB	
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JAN2N1302	GIC	58-36
RCA	TII	
2N1303	♦△TII	49-38
APX	CNS	
♦ETC	♦GESY	
♦GIC	ITC	
MST	MULB	
♦NPC	NTLB	
PHIC	PHIN	
RADF	RAYI	
♦RCA	♦SES	
TEK	TIIB	
TIIF	VALG	
JAN2N1303	GESY	50-62
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	TII	
2N1304	♦△TII	58-56
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ESMF	♦ETC	
♦GIC	IDC	
MISI	MST	
MULB	♦NPC	
NTLB	PHIC	
PHIN	RADF	
♦RCA	♦SES	
TIIB	TIIF	
	VALG	
JAN2N1304	GIC	58-57
RCA	TII	
2N1305	♦△TII	49-39
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ESMF	♦ETC	

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TYPE No.	MFRS	Pg&Line
2N1305		
(cont.)	♦GESY	
♦GIC	IDC	
ITC	MISI	
MST	MULB	
♦NPC	NTLB	
PHIC	PHIN	
RADF	RAYI	
♦RCA	♦SES	
TIIB	TIIF	
	VALG	
JAN2N1305	GESY	50-92
GIC	RCA	
	TII	
2N1306	♦△TII	58-77
APX	ESMF	166-10
♦ETC	♦GIC	
MISI	MST	
MULB	♦NPC	
NTLB	PHIC	
PHIN	RADF	
♦RCA	♦SES	
TIIB	TIIF	
	VALG	
JAN2N1306	GIC	58-78
RCA	TII	
2N1307	♦△TII	49-40
APX	CNS	
ESMF	♦ETC	
♦GESY	♦GIC	
ITC	MISI	
MST	MULB	
♦NPC	NTLB	
PHIC	PHIN	
RADF	RAYI	
♦RCA	♦SES	
TIIB	TIIF	
	VALG	
JAN2N1307	GESY	51-14
GIC	RCA	
	TII	
2N1308	♦△TII	58-85
APX	CNS	166-91
ESMF	♦ETC	
♦GIC	MISI	
MST	MULB	
♦NPC	NTLB	
PHIC	PHIN	
RADF	♦RCA	
♦SES	TIIB	
TIIF	VALG	
JAN2N1308	GIC	58-86
RCA	TII	
2N1309	♦△TII	49-41
APX	CNS	
ESMF	♦ETC	
GESY	♦GIC	
ITC	MISI	
MST	MULB	
♦NPC	NTLB	
PHIC	PHIN	
RADF	RAYI	
♦RCA	♦SES	
TIIB	TIIF	
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JAN2N1309	GIC	51-30
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2N1311	CNS	57-91
2N1312	CNS	57-92
2N1313	♦ETC	52-77
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2N1314	ETC	118-75
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2N1316	♦△ITC	53-106
	ETC	166-39
2N1317	♦△ITC	53-107
	ETC	166-31
2N1318	♦△ITC	53-108
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2N1319	TII	48-21
2N1320	KSC	115-27
2N1321	♦KSC	124-23
2N1322	KSC	115-28
2N1323	♦KSC	124-24
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2N1325	♦KSC	124-25
2N1326	♦KSC	115-30
2N1327	♦KSC	124-26
2N1328	KSC	115-1
2N1329	♦KSC	124-27
2N1330	♦KSC	124-28
2N1331	KSC	115-2
2N1332	♦KSC	124-29
2N1333	KSC	115-3
2N1334	♦KSC	124-30
2N1335	♦△TRW	101-22
SCA	SSI	
2N1336	♦△TRW	101-23
SCA	SSI	
2N1337	♦△TRW	101-24
SCA	SSI	
2N1338	♦△TRW	101-25
♦NPC	SCA	
	SSI	
2N1339	♦△TRW	101-26
SCA	SSI	
2N1340	NPC	101-27
SCA	SSI	176-64

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2N1341	♦△TRW	101-28
SCA	SSI	
2N1342	♦△TRW	101-29
♦NPC	SCA	
	SSI	
2N1343	♦△ITC	50-79
	♦ETC	
2N1344	♦△ITC	50-105
	ETC	165-87
2N1345	♦△ITC	51-15
	♦ETC	166-33
2N1346	♦△ITC	51-16
	♦ETC	166-34
2N1347	♦△ITC	50-93
	♦ETC	
2N1348	♦ETC	53-92
	ITC	
2N1349	♦ETC	53-109
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2N1350	♦ETC	53-101
	ITC	
2N1351	♦ETC	53-102
	ITC	
2N1352	♦△ITC	50-49
ETC	GIC	
2N1353	♦△ITC	53-74
	ETC	164-107
2N1354	♦△ITC	53-87
	ETC	165-45
2N1355	♦△ITC	53-103
	ETC	165-97
2N1356	♦△ITC	53-93
	ETC	165-98
2N1357	♦△ITC	54-1
	ETC	166-59
2N1358	♦△DEL	120-23
♦ETC	MOTA	163-45
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	RADF	
JAN2N1358	DEL	122-108
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2N1358A	♦△DEL	122-109
♦ETC	MOTA	162-88
2N1359	♦△MOTA	120-24
♦ETC	KSC	
	♦SOD	
2N1360	♦△MOTA	120-25
♦ETC	KSC	
	♦SOD	
2N1362	♦△MOTA	120-26
♦ETC	KSC	
	♦SOD	
2N1363	♦△MOTA	120-27
♦ETC	KSC	
	♦SOD	
2N1364	♦△MOTA	120-28
♦ETC	KSC	
	♦SOD	
2N1365	♦△MOTA	120-29
♦ETC	KSC	
	♦SOD	
2N1366	ETC	57-68
2N1367	ETC	57-69
2N1370	♦△TII	54-89
♦ETC	GESY	
GIC	ITC	
	MST	
2N1371	♦△TII	54-90
♦ETC	GESY	
GIC	ITC	
	MST	
2N1372	♦△TII	54-91
♦ETC	GESY	
GIC	ITC	
	MST	
2N1373	♦△TII	54-92
♦ETC	GESY	
GIC	ITC	
	MST	
2N1374	♦△TII	54-93
♦ETC	GESY	
GIC	ITC	
	MST	
2N1375	♦△TII	54-94
♦ETC	GESY	
GIC	ITC	
	MST	
2N1376	♦△TII	54-95
♦ETC	GESY	
GIC	ITC	
	MST	
2N1377	♦△TII	54-96
♦ETC	GESY	
GIC	ITC	
	MST	
2N1378	♦△TII	54-97
♦ETC	GESY	
GIC	ITC	
	MST	
2N1379	♦△TII	54-98
♦ETC	GESY	
GIC	ITC	
	MST	
2N1380	♦△TII	54-99
♦ETC	GESY	
GIC	ITC	
	MST	
2N1381	♦△TII	54-100
♦ETC	GESY	
GIC	ITC	
	MST	
2N1382	♦△TII	54-101
♦ETC	GIC	
ITC	MST	

TYPE No.	MFRS	Pg&Line
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♦ETC	GIC	
	MST	
2N1384	♦△RCA	54-82
	ITC	168-86
2N1385	△TII	56-48
2N1386	♦ETC	84-75
	SCA	170-35
2N1387	♦ETC	84-50
	SCA	169-70
2N1388	ETC	85-14
	SCA	
2N1389	ETC	84-26
SCA	SES	
2N1390	ETC	83-108
	SCA	
2N1391	♦ETC	58-37
	GIC	
2N1395	♦APX	48-53
PHIC	♦RCA	
2N1396	♦△RCA	48-70
♦APX	PHIC	
2N1397	♦△RCA	48-76
	PHIC	
2N1404	△TII	50-80
♦ETC	GIC	
ITC	MST	
2N1408	△GIC	49-42
♦ETC	ITC	
	♦MOTA	
2N1409	♦ETC	97-65
	SCA	
2N1409A	♦ETC	102-23
	SCA	
2N1410	♦ETC	97-66
SCA	♦TRW	
2N1410A	♦ETC	102-24
	SCA	175-28
2N1411	SPR	170-79
JAN2N1411	SPR	43-23
2N1412	♦△DEL	120-30
♦ETC	MOTA	
JAN2N1412	DEL	119-9
	MOTA	
JAN2N1412A	DEL	119-10
	MOTA	
2N1413	♦△GESY	53-72
♦ETC	♦MOTA	
	♦TII	
2N1414	♦△GESY	53-75
♦ETC	IDC	
♦MOTA	♦TII	
2N1415	♦△GESY	53-76
♦ETC	♦MOTA	
	♦TII	
2N1416	♦ETC	55-3
2N1417	♦△TEC	74-87
ETC	♦GESY	
	ITC	
2N1418	♦△TEC	74-88
ETC	♦GESY	
	ITC	
2N1420	♦△FSC	97-67
♦CDC	CDLF	
CNS	ESMF	
♦ETC	♦GIC	
HSC	ITC	
MINA	♦MOTA	
MST	MULB	
♦NSC	PHIC	
PHIN	RADF	
RAYN	SES	
SGSI	TADI	
♦TEC	♦TII	
TIIF	♦TRW	
	VALG	
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	TADI	
2N1427	♦SPR	43-29
		170-36
2N1429	CRY	47-70
	SPR	
2N1430	♦△SOD	117-3
2N1431	ETC	58-95
2N1437	♦KSC	115-31
2N1438	♦KSC	115-32
2N1439	△NSC	68-20
♦CRY	SOD	
2N1440	♦CRY	68-21
♦ETC	SOD	
2N1441	♦CRY	68-22
♦ETC	SOD	
2N1442	♦CRY	68-23
♦ETC	SOD	
2N1443	♦CRY	68-24
	SOD	
2N1445	SSI	99-100
	TEC	
2N1446	♦△ITC	53-55
	♦ETC	
2N1447	♦△ITC	53-67
	♦ETC	
2N1448	♦△ITC	53-77
	♦ETC	
2N1449	♦△ITC	53-94
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JAN2N1450M	none	48-7
		160-106
2N1451	△ITC	53-42
	ETC	
2N1452	△ITC	53-57
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TYPE No.	MFRS	Pg&Line
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2N1466	♦KSC	115-34
2N1469	♦△SOD	62-76
♦CRY	♦ETC	
JAN2N1469M	CRY	62-77
	SOD	
2N1471	△ITC	53-95
	♦ETC	
2N1472	♦ETC	75-9
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2N1474	♦△SOD	62-52
♦CRY	ETC	
2N1474A	♦△SOD	62-78
♦CRY	ETC	
2N1475	♦△SOD	62-53
♦CRY	ETC	
2N1476	♦△SOD	62-54
	♦CRY	
2N1477	♦△SOD	62-55
	♦CRY	
2N1478	CNS	55-16
♦ETC	GIC	
ITC	TADI	
2N1479	♦△RCA	133-107
ETC	ITC	
PIR	SIL	
SLA	SPC	
SSI	TEC	
JAN2N1479	RCA	133-108
	SIL	
2N1480	♦△RCA	133-109
ETC	ITC	
PIR	♦SIL	
SLA	SPC	
SSI	TEC	
JAN2N1480	RCA	133-110
	SIL	
2N1481	♦△RCA	134-1
ETC	IDC	
ITC	PIR	
♦SIL	SLA	
SPC	SSI	
	TEC	
JAN2N1481	RCA	134-2
	SIL	
2N1482	♦△RCA	134-3
ETC	ITC	
PIR	♦SIL	
SLA	SPC	
SSI	TEC	
JAN2N1482	RCA	134-4
	SIL	
2N1483	♦△RCA	142-1
ASC	PIR	
♦SIL	SLA	
	SPC	
JAN2N1483	RCA	142-2
	SIL	
2N1484	♦△RCA	142-3
ASC	PIR	
♦SIL	SLA	
	SPC	
JAN2N1484	RCA	142-4
	SIL	
2N1485	♦△RCA	142-5
ASC	IDC	
PIR	♦SIL	
SLA	SPC	
JAN2N1485	RCA	142-6
	SIL	
2N1486	♦△RCA	142-7
ASC	PIR	
♦SIL	SLA	
	SPC	
JAN2N1486	RCA	142-8
	SIL	
2N1487	♦△RCA	148-78
ASC	♦ETC	
PIR	PPC	
SCA	♦SIL	
SLA	♦SOD	
SPC	SSI	
JAN2N1487	RCA	148-79
SIL	SOD	
2N1488	♦△RCA	148-80
ASC	♦ETC	
PIR	PPC	
SCA	♦SIL	
SLA	♦SOD	
SPC	SSI	
JAN2N1488	RCA	148-81
SIL	SOD	
2N1489	♦△RCA	148-82
ASC	♦ETC	
PIR	PPC	
SCA	♦SIL	
SLA	♦SOD	
SPC	SSI	
JAN2N1489	RCA	148-83
SIL	SOD	
2N1490	♦△RCA	148-84
ASC	♦ETC	
IDC	PIR	
PPC	SCA	
♦SIL	SLA	
♦SOD	SPC	
	SSI	
JAN2N1490	RCA	148-85
SIL	SOD	
2N1491	♦△RCA	96-33
2N1492	♦△RCA	96-68
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2N1493	♦△RCA	96-70
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2N1496	♦MOTA	56- 22
		172- 89
2N1499	♦ETC	43- 19
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JAN2N1499A	SPR	44- 97
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2N1499B	♦△SPR	45- 78
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JAN2N1500	SPR	44- 98
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	♦KSC	
2N1502	♦△SOD	116- 8
	♦KSC	
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2N1505	♦△TRW	132- 61
♦NPC	SSI	
2N1506	♦△TRW	132- 62
♦NPC	SCA	
SOD	SSI	
2N1506A	♦△TRW	133- 40
IDC	SCA	
SOD	SSI	
JAN2N1506A	SOD	102- 22
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2N1507	♦△TII	97- 68
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GIC	MST	
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2N1511	♦SIL	148- 96
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2N1512	♦SIL	148- 97
	SSI	
2N1513	♦SIL	148- 98
	SSI	
2N1514	♦SIL	148- 99
	SSI	
2N1518	♦△DEL	121-103
	♦ETC	165- 6
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	♦ETC	165- 7
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SOD	♦TII	
2N1529A	♦△MOTA	121-109
ETC	KSC	
	SOD	
2N1530	♦△MOTA	120- 32
♦ETC	KSC	
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2N1530A	♦△MOTA	121-110
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2N1531	♦△MOTA	120- 33
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SOD	♦TII	
2N1531A	♦△MOTA	122- 1
ETC	KSC	
	SOD	
2N1532	♦△MOTA	120- 34
♦ETC	KSC	
SOD	♦TII	
2N1532A	♦△MOTA	122- 2
ETC	KSC	
	SOD	
2N1533	♦△MOTA	120- 35
♦ETC	KSC	
SOD	♦TII	
2N1534	♦△MOTA	120- 36
♦DEL	♦ETC	
KSC	SOD	
	♦TII	
2N1534A	♦△MOTA	122- 3
ETC	KSC	
	SOD	
2N1535	♦△MOTA	120- 37
♦DEL	♦ETC	
KSC	SOD	
	♦TII	
2N1535A	♦△MOTA	122- 4
ETC	KSC	
	SOD	
2N1536	♦△MOTA	120- 38
♦DEL	♦ETC	
KSC	SOD	
	♦TII	
2N1536A	♦△MOTA	122- 5
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(cont.)	ETC	
KSC	SOD	
2N1537	♦△MOTA	120- 39
DEL	♦ETC	
KSC	SOD	
	♦TII	
2N1537A	♦△MOTA	122- 6
♦ETC	KSC	
	SOD	
2N1538	♦△MOTA	120- 40
♦ETC	KSC	
SOD	♦TII	
2N1539	♦△MOTA	120- 41
♦DEL	♦ETC	
KSC	SOD	
♦TII	TIIB	
2N1539A	♦△MOTA	120- 42
ETC	KSC	
	SOD	
2N1540	♦△MOTA	120- 43
♦DEL	♦ETC	
IDC	KSC	
SOD	♦TII	
2N1540A	♦△MOTA	120- 44
ETC	KSC	
	SOD	
2N1541	♦△MOTA	120- 45
♦DEL	♦ETC	
KSC	SOD	
♦TII	TIIB	
2N1541A	♦△MOTA	120- 46
ETC	KSC	
	SOD	
2N1542	♦△MOTA	120- 47
♦DEL	♦ETC	
KSC	SOD	
♦TII	TIIB	
2N1542A	♦△MOTA	120- 48
ETC	KSC	
	SOD	
2N1543	♦△MOTA	120- 49
♦DEL	♦ETC	
KSC	SOD	
♦TII	TIIB	
2N1544	♦△MOTA	120- 50
♦DEL	♦ETC	
♦KSC	SOD	
	♦TII	
2N1544A	♦△MOTA	120- 51
ETC	KSC	
	SOD	
2N1545	♦△MOTA	120- 52
♦DEL	♦ETC	
♦KSC	SOD	
	♦TII	
2N1545A	♦△MOTA	120- 53
ETC	KSC	
	SOD	
2N1546	♦△MOTA	120- 54
♦DEL	♦ETC	
♦KSC	SOD	
	♦TII	
2N1546A	♦△MOTA	120- 55
ETC	KSC	
	SOD	
2N1547	♦△MOTA	120- 56
♦DEL	♦ETC	
♦KSC	SOD	
	♦TII	
2N1547A	♦△MOTA	120- 57
ETC	KSC	
	SOD	
2N1548	♦△MOTA	120- 58
ETC	KSC	
SOD	♦TII	
2N1549	♦△MOTA	120- 59
♦ETC	KSC	
	SOD	
2N1549A	♦△MOTA	120- 60
ETC	KSC	
	SOD	
JAN2N1549A	MOTA	114- 12
		162-103
2N1550	♦△MOTA	120- 61
♦ETC	KSC	
	SOD	
2N1550A	♦△MOTA	120- 62
ETC	KSC	
	♦SOD	
JAN2N1550A	MOTA	114- 13
		162-104
2N1551	♦△MOTA	120- 63
♦ETC	KSC	
	SOD	
2N1551A	♦△MOTA	120- 64
ETC	KSC	
	♦SOD	
JAN2N1551A	MOTA	114- 14
		162-105
2N1552	♦△MOTA	120- 65
♦ETC	KSC	
	SOD	
2N1552A	♦△MOTA	120- 66
ETC	KSC	
	♦SOD	
JAN2N1552A	MOTA	114- 15
		162-106
2N1553	♦△MOTA	120- 67
♦ETC	KSC	
	SOD	
2N1553A	♦△MOTA	120- 68
ETC	KSC	
	SOD	

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JAN2N1553A	MOTA	114- 16
		162- 70
2N1554	♦△MOTA	120- 69
♦ETC	KSC	
	SOD	
2N1554A	♦△MOTA	120- 70
ETC	KSC	
	SOD	
JAN2N1554A	MOTA	114- 17
	TEC	
		162- 71
2N1555	♦△MOTA	120- 71
♦ETC	KSC	
	SOD	
2N1555A	♦△MOTA	120- 72
ETC	KSC	
	SOD	
JAN2N1555A	MOTA	114- 18
		162- 72
2N1556	♦△MOTA	120- 73
♦ETC	KSC	
	SOD	
2N1556A	♦△MOTA	120- 74
ETC	KSC	
	SOD	
JAN2N1556A	MOTA	120- 75
		162- 73
2N1557	♦△MOTA	120- 76
♦ETC	KSC	
	SOD	
2N1557A	ETC	120- 77
KSC	♦MOTA	
	SOD	
JAN2N1557A	MOTA	114- 19
		162- 74
2N1558	♦△MOTA	120- 78
♦ETC	KSC	
	SOD	
2N1558A	♦△MOTA	120- 79
ETC	KSC	
	SOD	
JAN2N1558A	MOTA	120- 80
		162- 75
2N1559	♦△MOTA	120- 81
♦ETC	KSC	
	SOD	
2N1559A	ETC	120- 82
KSC	♦MOTA	
	SOD	
JAN2N1559A	MOTA	114- 20
		162- 76
2N1560	♦△MOTA	120- 83
♦ETC	IDC	
KSC	SOD	
2N1560A	♦△MOTA	120- 84
ETC	KSC	
	SOD	
JAN2N1560A	MOTA	114- 21
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2N1561	♦△MOTA	55- 33
2N1562	♦△MOTA	55- 32
2N1564	△TII	97- 3
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MISI	♦NPC	
NSC	PHIN	
TADI	TIIB	
	TIIF	
2N1565	♦△TII	97- 4
ESMF	♦ETC	
LTTF	MISI	
♦NPC	♦NSC	
PHIN	TADI	
TIIB	TIIF	
	♦TRW	
2N1566	♦△TII	97- 5
ESMF	♦ETC	
LTTF	MISI	
NPC	♦NSC	
PHIN	TADI	
TIIB	TIIF	
	♦TRW	
2N1566A	♦△TII	98- 27
ESMF	♦ETC	
LTTF	MISI	
TADI	TIIF	
2N1572	△TII	97- 6
♦ETC	♦NPC	
PHIN	TIIB	
	TIIF	
2N1573	♦△TII	97- 7
♦ETC	♦NPC	
PHIN	TIIB	
	TIIF	
2N1574	♦△TII	97- 8
♦ETC	PHIN	
TIIB	TIIF	
2N1586	△TII	73- 44
♦ETC	SCA	
	TEC	
2N1587	△TII	73- 45
♦ETC	SCA	
	TEC	
2N1588	△TII	73- 46
♦ETC	SCA	
	TEC	
2N1589	△TII	73- 47
♦ETC	SCA	
	TEC	
2N1590	△TII	73- 48
♦ETC	SCA	
	TEC	
2N1591	△TII	73- 49
♦ETC	SCA	
	TEC	

TYPE No.	MFRS	Pg&Line
2N1592	△TII	73- 50
♦ETC	SCA	
	TEC	
2N1593	△TII	73- 51
♦ETC	SCA	
	TEC	
2N1594	△TII	73- 52
♦ETC	SCA	
	TEC	
2N1605	♦ETC	58- 82
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♦RCA	♦TII	
2N1605A	♦ETC	58-109
GIC	♦RCA	
2N1613	♦△FSC	100- 90
♦AML	ATEI	
BNT	♦CDC	
CNS	ESMF	
♦ETC	FERB	
♦GIC	HSC	
HUGS	IDC	
INTG	LTTF	
MINA	MISI	
♦MOTA	MST	
MULB	♦NPC	
NTLB	PHIC	
PHIN	RADF	
♦RAYN	♦RCA	
SES	SGSI	
STCB	TADI	
TEC	TFKG	
♦TII	TIIB	
TIIF	♦TRW	
UEHK	VALG	
JAN2N1613	AML	100- 91
CDC	FSC	
MOTA	RAYN	
TII	TRW	
2N1613A	RAYN	134- 5
	TADI	
2N1613B	RAYN	134- 6
2N1614	♦△GESY	54- 81
	ETC	
2N1615	△TEC	97- 24
	♦ETC	
2N1616	♦△TEC	147- 77
ESMF	♦ETC	
PPC	SEN	
♦SIL	SLA	
♦SOD	SPC	
	SSI	
2N1616A	♦△SIL	149- 12
ETC	PPC	
SEN	SLA	
SOD	SPC	
SSI	♦TEC	
2N1617	♦△TEC	147- 78
ESMF	♦ETC	
PPC	SEN	
♦SIL	SLA	
♦SOD	SPC	
	SSI	
2N1617A	♦△SIL	149- 13
ETC	PPC	
SEN	SLA	
SOD	SPC	
SSI	♦TEC	
2N1618	♦△TEC	147- 79
ESMF	♦ETC	
PPC	SEN	
♦SIL	SLA	
♦SOD	SPC	
	SSI	
2N1618A	♦△SIL	149- 14
ETC	PPC	
SEN	SLA	
SOD	SPC	
SSI	♦TEC	
2N1620	♦△TEC	147- 80
♦ETC	SEN	
♦SIL	SLA	
♦SOD	SPC	
	SSI	
2N1623	♦△RAYN	62- 34
CRY	♦ETC	
SOD	SSI	
	TADI	
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2N1637	♦△RCA	48- 59
2N1638	♦△RCA	48- 56
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2N1639	♦△RCA	48- 60
2N1640	♦△CRY	181- 20
2N1641	♦△CRY	181- 21
2N1642	♦△CRY	181- 22
2N1643	♦△CRY	62- 37
	SOD	
2N1644	♦CDC	98- 46
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JAN2N1646M	none	49- 43
2N1647	♦△TEC	145- 47
SEN	♦SIL	
SPC	SSI	
	SSP	
2N1648	♦△TEC	145- 43
SEN	♦SIL	
SPC	SSI	
	SSP	
2N1649	♦△TEC	145- 48
SEN	♦SIL	
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TYPE No.	MFRS	Pg&Line
2N1649		
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2N1650	♦△TEC	145- 44
SEN	♦SIL	
SPC	SSI	
	SSP	
2N1651	♦△SOD	120- 85
♦ETC	♦MOTA	
	SSI	
JAN2N1651	MOTA	120- 86
	SOD	164- 3
2N1652	♦△SOD	120- 87
	♦MOTA	
JAN2N1652	MOTA	120- 88
	SOD	164- 4
2N1653	♦△SOD	120- 89
	♦MOTA	
JAN2N1653	MOTA	120- 90
	SOD	164- 5
2N1654	♦△RAYN	62- 29
♦CRY	ETC	
	SOD	
2N1655	♦△RAYN	62- 28
♦CRY	ETC	
2N1656	♦△RAYN	62- 30
♦CRY	ETC	
2N1658/13	KSC	114- 22
2N1659/13	KSC	114- 23
2N1666	PHIC	117- 19
2N1667	♦△APX	117- 20
	PHIC	
2N1668	PHIC	117- 21
2N1669	PHIC	117- 22
2N1670	SCA	48- 32
2N1671	♦△GESY	187- 98
ESMF	SSI	
♦TII	TIIB	
2N1671A	♦△GESY	187- 99
ESMF	SOIF	
SSI	♦TII	
	TIIB	
2N1671B	♦△GESY	187-100
ESMF	SOIF	
SSI	♦TII	
	TIIB	
2N1671C	♦△GESY	187-101
ESMF	MISI	
	SSI	
2N1672	△GIC	57- 93
	♦ETC	
2N1672A	△GIC	57- 94
	♦ETC	
2N1674	△TEC	77- 53
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		188- 74
2N1677	♦SPR	60- 36
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		165- 67
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		170-106
2N1690	△TII	145- 2
ETC	SEN	
♦SIL	♦SLA	
SPC	SSI	
2N1691	△TII	145- 3
ETC	SEN	
♦SIL	♦SLA	
SPC	SSI	
2N1692	♦△MOTA	55-106
2N1693	♦△MOTA	55- 97
2N1694	♦△GESY	57- 57
	ETC	165-108
2N1700	♦△RCA	135- 12
ASC	♦ETC	
FERB	♦SIL	
SPC	TEC	
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♦SIL	SLA	
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2N1702	♦△RCA	148- 93
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FERB	PPC	
♦SIL	SOD	
SPC	SSI	
2N1703	SIL	148- 94
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2N1704	♦ETC	94- 89
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2N1706	♦ETC	53- 68
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	♦MOTA	
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BNT	♦CDC	
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	FERB	GIC
	HSC	HUGS
	INTG	MINA
	MISI	♦MOTA
	MST	MULB
	NSC	NTLB
	PHIC	RADF
	♦RAYN	♦RCA
	SES	SGSI
	STCB	TADI
	TEC	TEK
	TFKG	♦TII
	TIIB	TIIF
	♦TRW	UEHK
		VALG
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	TADI	
2N1711B	RAYN	134- 8
2N1714	♦△TII	100- 6
	ETC	SCA
	SOD	SSI
	♦SSP	TEC
	TIIB	TIIF
JAN2N1714	TII	100- 7
2N1715	♦△TII	100- 8
	ETC	SCA
	SSI	♦SSP
	TEC	TIIB
		TIIF
JAN2N1715	TII	100- 9
2N1716	♦△TII	100- 10
	ETC	SCA
	SOD	SSI
	♦SSP	TEC
	TIIB	TIIF
JAN2N1716	TII	100- 11
2N1717	♦△TII	100- 12
	ETC	SCA
	SSI	♦SSP
	TEC	TIIB
		TIIF
JAN2N1717	TII	100- 13
2N1718	♦△TII	141- 60
	SCA	SOD
	SSI	♦SSP
	TEC	TIIB
		TIIF
2N1719	♦△TII	141- 61
	SCA	SSI
	♦SSP	TEC
	TIIB	TIIF
2N1720	♦△TII	141- 62
	SCA	SOD
	SSI	♦SSP
	TEC	TIIB
		TIIF
2N1721	♦△TII	141- 63
	SCA	SSI
	♦SSP	TEC
	TIIB	TIIF
2N1722	♦△TII	150- 50
	♦ETC	SEN
	♦SIL	SLA
	♦SOD	SSI
	♦TEC	TIIB
JAN2N1722	TEC	150- 51
	TII	
2N1722A	♦△TII	150- 52
	♦SIL	SLA
	SSI	♦TEC
2N1723	♦△TII	150- 53
	SEN	♦SIL
	♦SOD	SSI
		♦TEC
2N1724	♦△TII	150- 54
	ESMF	♦ETC
	♦FSC	♦MOTA
	SEN	♦SIL
	SLA	♦SOD
	SSI	SSP
		♦TEC
JAN2N1724	SIL	150- 55
	TEC	TII
2N1724A	♦△TII	150- 56
	ESMF	SEN
	♦SIL	SLA
	SSI	SSP
		♦TEC
2N1725	♦△TII	150- 57
	ESMF	♦MOTA
	SEN	♦SIL
	♦SOD	SSI
	SSP	♦TEC
2N1726	♦ETC	44- 99
	♦SPR	
2N1727	♦ETC	44-100
	♦SPR	
2N1728	♦ETC	44-101
	♦SPR	
2N1729	△TII	49- 44
	ETC	161- 12
2N1730	△TII	58- 13
	ETC	161- 13
2N1731	△TII	50- 94
	ETC	
2N1732	△TII	58- 58
	ETC	
2N1742	♦ETC	44- 76
	♦MOTA	♦SPR

TYPE No.	MFRS	Pg&Line
2N1743	♦ETC	44- 74
	♦SPR	
2N1744	♦ETC	44- 67
	♦SPR	
2N1745	♦ETC	45- 3
	♦SPR	
2N1746	♦ETC	45- 2
	♦SPR	
2N1747	♦ETC	45- 4
	♦SPR	
2N1748	♦ETC	44- 84
	SPR	
2N1748A	♦ETC	44-110
	♦SPR	
2N1749	♦ETC	45- 75
	♦SPR	
2N1751	♦△SOD	120- 91
	♦MOTA	
2N1752	♦ETC	44- 85
	SPR	
2N1754	♦ETC	44- 20
	IDC	MOTA 170- 90
	♦SPR	
2N1755	ETC	115- 70
	♦KSC	166-101
2N1756	ETC	115- 71
	♦KSC	166-102
2N1757	ETC	115- 72
	♦KSC	166-103
2N1758	♦KSC	115- 73
		166-104
2N1759	ETC	115- 74
	♦KSC	166- 99
2N1760	ETC	115- 75
IDC	♦KSC	166-100
2N1761	ETC	115- 76
	♦KSC	166-105
2N1762	♦KSC	115- 77
		166-106
2N1768	ETC	144- 77
SCA	♦SIL	
♦SLA	SPC	
2N1769	ETC	144- 78
SCA	♦SIL	
♦SLA	SPC	
2N1785	♦ETC	43- 82
	♦SPR	
2N1786	♦ETC	43- 83
	♦SPR	
2N1787	♦ETC	43- 84
	♦SPR	
2N1788	♦ETC	44-102
	♦SPR	
2N1789	♦ETC	44-103
	♦SPR	
2N1790	♦ETC	44-104
	♦SPR	
2N1808	♦△TII	58- 83
ETC	GIC	166- 67
2N1809	△WESY	157- 84
SEN	SLA	162- 5
	SPC	
2N1810	△WESY	157- 85
SEN	SLA	162- 6
	SPC	
2N1811	△WESY	157- 86
SEN	SLA	162- 7
	SPC	
2N1812	△WESY	157- 87
SEN	SLA	162- 8
	SPC	
2N1813	△WESY	157- 88
SEN	SLA	162- 9
	SPC	
2N1814	△WESY	157- 89
SEN	SLA	162- 10
	SPC	
2N1816	△WESY	157- 90
SEN	SLA	162- 11
	SPC	
2N1817	△WESY	157- 91
SEN	SLA	162- 12
	SPC	
2N1818	△WESY	157- 92
SEN	SLA	162- 13
	SPC	
2N1819	△WESY	157- 93
SEN	SLA	162- 14
	SPC	
2N1820	△WESY	158- 10
SLA	SPC	162- 15
2N1823	♦△WESY	157- 94
SEN	SLA	162- 16
	SPC	
2N1824	♦△WESY	157- 95
SEN	SLA	162- 17
	SPC	
2N1825	♦△WESY	157- 96
SEN	SLA	162- 18
	SPC	
2N1826	♦△WESY	157- 97
SEN	SLA	162- 19
	SPC	
2N1830	♦△WESY	157- 98
SEN	SLA	162- 20
	SPC	
2N1831	♦△WESY	157- 99
SEN	SLA	162- 21
	SPC	
2N1832	♦△WESY	157-100
SEN	SLA	162- 22
	SPC	
2N1833	♦△WESY	157-101

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TYPE No.	MFRS	Pg&Line
2N1833		
(cont.)	SEN	162- 23
SLA	SPC	
2N1837	♦△TRW	98- 43
♦CDC	♦ETC	172- 37
SCA	SSI	
2N1837A	♦CDC	101-103
ETC	SSI	172- 38
2N1838	♦CDC	98- 20
♦ETC	SCA	171- 17
	SSI	
2N1839	♦CDC	98- 21
ETC	SCA	171- 18
	SSI	
2N1840	♦CDC	98- 22
ETC	SSI	171- 21
2N1853	♦△RCA	49- 45
JAN2N1853	RCA	49- 46
		161- 24
2N1854	♦△RCA	51- 43
JAN2N1854	RCA	51- 44
		168- 93
2N1864	♦ETC	44-105
	♦SPR	
2N1865	♦ETC	45- 5
	♦SPR	
2N1866	♦ETC	45- 6
	♦SPR	
2N1867	♦ETC	45- 7
	♦SPR	
2N1868	♦ETC	45- 39
	♦SPR	
2N1886	♦△TEC	145- 49
♦SIL	SPC	
	SSP	
2N1889	♦△FSC	100- 55
♦CDC	ESMF	
♦ETC	GIC	
HUGS	MST	
RAYN	SGSI	
SOD	TADI	
TEC	♦TII	
TIIB	VALG	
2N1890	♦△FSC	100- 92
♦CDC	ESMF	
♦ETC	HUGS	
MOTA	MST	
♦RAYN	SES	
SGSI	SOD	
TADI	TEC	
♦TII	TIIB	
	♦TRW	
JAN2N1890	CDC	101- 32
FSC	TII	170- 78
2N1891	△TII	58- 59
		181- 23
2N1892	△TII	58- 60
	ETC	165- 56
2N1893	♦△FSC	100- 56
BNT	♦CDC	
CNS	ESMF	
♦ETC	♦GIC	
HUGS	INTG	
MINA	MISI	
MOTA	MST	
MULB	NTLB	
PHIC	♦RAYN	
♦RCA	SES	
SGSI	STCB	
TADI	TEC	
TFKG	♦TII	
TIIB	TIIF	
♦TRW	VALG	
JAN2N1893	CDC	100- 93
FSC	TII	
2N1893A	♦△TRW	101- 57
MST	RAYN	
	SCA	
2N1899	♦△TRW	153- 58
LTTF	PHIN	
SEN	SSI	
2N1900	♦△TRW	153- 59
SEN	SSI	
2N1901	♦△TRW	153- 60
SEN	SSI	
2N1902	♦△TRW	153- 61
SEN	SSI	
2N1904	♦△TRW	153- 62
SEN	SSI	
2N1905	♦△RCA	117- 23
ATEI	IDC	
2N1906	♦△RCA	117- 24
	ATEI	
2N1907	♦△TII	122-110
	TIIB	
2N1908	♦△TII	123- 1
IDC	TIIB	
2N1917	♦△SOD	62- 79
	♦CRY	188- 76
2N1918	♦△SOD	62- 93
	♦CRY	188- 77
2N1919	♦△SOD	62- 56
	♦CRY	188- 78
2N1920	♦△SOD	62- 57
	♦CRY	188- 79
2N1921	△SOD	62- 58
	♦CRY	188- 80
2N1922	♦△SOD	62- 59
	♦CRY	188- 81
2N1924	♦△GESY	54- 48
ESMF	♦ETC	
ITC	MISI	
♦MOTA	♦NPC	

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TYPE No.	MFRS	Pg&Line
2N1924		
(cont.)	PHIN	
♦TII	TIIF	
2N1925	♦△GESY	54- 51
ESMF	♦ETC	
MISI	♦MOTA	
♦NPC	PHIN	
♦TII	TIIF	
2N1926	♦△GESY	54- 53
ESMF	♦ETC	
MISI	♦MOTA	
♦NPC	PHIN	
♦TII	TIIF	
2N1936	ESMF	156- 19
♦ETC	♦SIL	
	TEC	
2N1937	ESMF	156- 20
ETC	♦SIL	
	TEC	
2N1943	SCA	99- 94
2N1944	♦△ITC	97-106
	MST	
2N1945	♦△ITC	97-107
	MST	
2N1946	♦△ITC	97-108
	MST	
2N1947	♦△ITC	97-109
	MST	
2N1948	♦△ITC	97-110
	MST	
2N1949	♦△ITC	98- 1
	MST	
2N1950	♦△ITC	98- 2
	MST	
2N1951	♦△ITC	98- 3
	MST	
2N1952	♦△ITC	98- 4
	MST	
2N1953	△ITC	97- 51
2N1954	♦ETC	52- 88
		161- 29
2N1955	♦ETC	52- 89
		161- 30
2N1956	♦ETC	52- 90
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2N1957	♦ETC	52- 91
		161- 32
2N1958	♦ETC	98- 28
MST	TEC	171- 59
2N1958A	♦ETC	98- 29
	TEC	171- 54
2N1959	♦ETC	98- 30
♦MOTA	SCA	171- 60
	TEC	
2N1959A	♦ETC	98- 31
SCA	TEC	171- 55
2N1969	ETC	51- 17
		166- 40
2N1970	♦△DEL	120- 92
♦ETC	♦MOTA	
2N1971	SOD	116- 40
2N1972	♦CDC	97- 69
ETC	ITC	
SES	SGSI	
	TEC	
2N1973	♦△FSC	100- 94
♦CDC	ETC	
ITC	♦RAYN	
SES	SGSI	
TADI	TEC	
♦TII	TRW	
2N1974	♦△FSC	100- 57
♦CDC	ETC	
♦RAYN	SES	
SGSI	SOD	
TADI	TEC	
	♦TII	
2N1975	♦△FSC	101- 18
♦CDC	ETC	
♦RAYN	SES	
SGSI	SOD	
TADI	TEC	
	♦TII	
2N1980	♦ETC	123- 2
	♦MOTA	
2N1981	♦ETC	123- 3
	♦MOTA	
2N1982	♦ETC	123- 4
	♦MOTA	
2N1983	♦△FSC	97- 52
♦CDC	♦ETC	
ITC	♦MOTA	
♦RAYN	SGSI	
	TEC	
2N1984	♦△FSC	97- 53
♦CDC	♦ETC	
♦ITC	♦MOTA	
♦RAYN	SGSI	
	TEC	
2N1985	♦△FSC	97- 54
♦ETC	ITC	
♦RAYN	SGSI	
	TEC	
2N1986	♦△FSC	97- 55
♦CDC	♦ETC	
♦GIC	♦ITC	
♦RAYN	SGSI	
TEC	♦TRW	
2N1987	♦△FSC	97- 56
♦CDC	♦ETC	
♦GIC	♦ITC	
♦NPC	♦RAYN	
SGSI	TEC	

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2N1988	♦△FSC	97- 57
♦CDC	♦ETC	
♦GIC	ITC	
♦RAYN	SGSI	
	TEC	
2N1989	♦△FSC	97- 58
♦CDC	♦ETC	
♦GIC	ITC	
♦RAYN	SGSI	
TEC	♦TRW	
2N1990	♦△FSC	97- 9
♦CDC	ESMF	
♦ETC	♦GIC	
MISI	♦MOTA	
MST	RADF	
♦RAYN	SES	
SGSI	TADI	
TEC	TIIF	
♦TRW	VALG	
2N1990R	ESMF	81- 77
MISI	♦NPC	
2N1990S	ESMF	97- 10
MISI	♦NPC	
2N1990W	ESMF	83- 53
	MISI	
2N1991	♦△FSC	70- 82
ETC	HSC	
HUGS	ITT	
♦MOTA	SGSI	
	♦TEC	
2N1993	ETC	58- 38
GIC	TII	164- 94
2N1994	♦△TII	181- 24
2N1995	♦△TII	181- 25
	MST	
2N1996	♦△TII	181- 26
2N1997	♦△TII	55- 15
ETC	GIC	
	ITC	
2N1998	♦△TII	55- 22
CNS	ETC	
GIC	ITC	
2N1999	♦△TII	55- 24
ETC	GIC	
	ITC	
2N2000	♦△TII	55- 74
2N2001	♦△TII	55- 76
	♦ETC	
2N2002	♦CRY	62- 38
	SOD	
2N2003	♦CRY	62- 39
	SOD	
2N2004	♦CRY	62- 40
	SOD	
2N2005	♦CRY	62- 41
	SOD	
2N2006	♦CRY	62- 42
	SOD	
2N2007	♦CRY	62- 43
	SOD	
2N2008	♦△RAYN	100- 18
♦FSC	MST	167-100
SGSI	TADI	
2N2015	♦△RCA	152- 97
ASC	FERB	
♦SIL	SSI	
JAN2N2015	RCA	152- 98
2N2016	♦△RCA	152- 99
ASC	FERB	
♦SIL	SSI	
JAN2N2016	RCA	152-100
2N2017	♦△GESY	134- 9
NSC	SSI	
	TEC	
2N2018	♦△TEC	145- 45
SEN	SSI	
2N2019	♦△TEC	145- 46
SEN	SSI	
2N2020	♦△TEC	145- 70
SEN	SSI	
2N2021	♦△TEC	145- 71
SEN	SSI	
2N2032	♦△TEC	149- 26
ETC	SEN	
♦SIL	♦SLA	
SOD	SPC	
	SSI	
2N2033	♦△SIL	136- 92
ETC	PIR	
SEN	♦SLA	
SPC	SSI	
2N2034	♦△SIL	136- 93
PIR	SEN	
♦SLA	SOD	
SPC	SSI	
	TIIF	
JAN2N2034	none	140- 19
		165- 81
2N2035	♦△SIL	142- 9
PIR	SCA	
SEN	SLA	
SPC	SSI	
2N2036	♦△SIL	144- 79
SEN	SPC	
2N2038	♦△TEC	97- 25
	ETC	
2N2039	♦△TEC	97- 26
	ETC	
2N2040	♦△TEC	97- 27
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2N2041	♦△TEC	97- 28
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2N2042	♦△MOTA	52- 98
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	♦ SPR	176- 42
2N2049	♦△FSC	100- 58
♦ CDC	♦ RAYN	
SES	SGSI	
TADI	VALG	
2N2060	♦△FSC	95- 38
♦ AML	ESMF	182- 2
FERB	♦ GESY	
GIC	MISI	
♦ MOTA	♦ RAYN	
SGSI	SSI	
TADI	♦ TII	
TIIB	TIIF	
JAN2N2060	AML	96- 90
FSC	GESY	182- 3
MOTA	RAYN	
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2N2060A	♦ AML	95- 39
ESMF	♦ FSC	182- 4
GIC	MISI	
♦ MOTA	RAYN	
SSI	TADI	
2N2060B	♦△FSC	95- 40
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2N2061	♦ ETC	116- 41
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2N2061A	♦ ETC	120- 93
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2N2062	♦ ETC	116- 42
	MOTA	
2N2062A	♦ ETC	120- 94
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2N2063	♦ ETC	116- 43
	MOTA	
2N2063A	♦ ETC	120- 95
	KSC	
2N2064	♦ ETC	116- 44
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2N2064A	♦ ETC	120- 96
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2N2065	♦ ETC	116- 45
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2N2065A	♦ ETC	120- 97
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2N2066	♦ ETC	116- 46
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2N2066A	♦ ETC	120- 98
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2N2067	ETC	115- 78
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2N2067-O	ETC	115- 79
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2N2067B	ETC	115- 80
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2N2067G	ETC	115- 81
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2N2067W	ETC	115- 82
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2N2068	ETC	115- 83
	KSC	
2N2068-O	ETC	115- 84
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2N2068G	ETC	115- 85
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2N2075	♦△MOTA	123- 5
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2N2075A	♦△MOTA	123- 6
	ETC	
2N2076	♦△MOTA	123- 7
♦ DEL	♦ ETC	
2N2076A	♦△MOTA	123- 8
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2N2077	♦△MOTA	123- 9
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2N2077A	♦△MOTA	123- 10
	ETC	
2N2078	♦△MOTA	123- 11
♦ DEL	♦ ETC	
2N2078A	♦△MOTA	123- 12
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2N2079	♦△MOTA	123- 13
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2N2080A	♦△MOTA	123- 16
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2N2081	♦△MOTA	123- 17
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2N2081A	♦△MOTA	123- 18
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2N2082A	♦△MOTA	123- 20
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JAN2N2084	APX	48-110
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PPC	SEN	
	♦ SOD	
2N2102	♦△RCA	146- 19
ATEI	♦ CDC	
FERB	MST	
♦ RAYN	SSI	
TADI	TEC	
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2N2102A	△TII	134- 10
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SSI	TADI	
2N2106	♦△GESY	131- 90
SCA	SSI	
	TEC	
2N2107	♦△GESY	131- 91
ETC	SCA	
SSI	TEC	
2N2108	♦△GESY	131- 92
SCA	SSI	
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2N2109	♦△WESY	157-102
SEN	♦ SIL	162- 24
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2N2110	♦△WESY	157-103
SEN	♦ SIL	162- 25
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SEN	♦ SIL	162- 26
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2N2112	♦△WESY	157-105
SEN	♦ SIL	162- 27
	SPC	
2N2113	♦△WESY	157-106
SEN	♦ SIL	162- 28
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2N2114	♦△WESY	157-107
SEN	♦ SIL	162- 29
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2N2116	♦△WESY	157-108
SEN	♦ SIL	162- 30
	SPC	
2N2117	♦△WESY	157-109
SEN	♦ SIL	162- 31
	SPC	
2N2118	♦△WESY	157-110
SEN	♦ SIL	162- 32
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2N2119	♦△WESY	158- 1
SEN	♦ SIL	162- 33
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2N2120	△WESY	158- 11
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2N2123	♦△WESY	158- 2
SEN	♦ SIL	162- 35
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SEN	♦ SIL	162- 42
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2N2137	♦△MOTA	118- 76
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2N2137A	♦△MOTA	118- 77
	♦ ETC	
2N2138	♦△MOTA	118- 78
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2N2178	△SOD	60- 32
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♦ RAYN	SPR	188- 89
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♦ CDC	ESMF	169- 81
♦ FSC	ITT	
♦ MOTA	MST	
2N2192 (cont.)	NSC	
♦ RAYN	SGSI	
SSI	TADI	
♦ TII	TIIB	
	TIIF	
2N2192A	♦ AML	100- 60
♦ CDC	ESMF	169- 82
♦ FSC	ITT	
♦ MOTA	NSC	
♦ RAYN	SGSI	
SSI	TADI	
♦ TII	TIIB	
	TIIF	
2N2192B	♦ AML	100- 61
♦ CDC	♦ FSC	169- 83
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♦ RAYN	SGSI	
SSI	TADI	
2N2193	♦ AML	100- 62
♦ CDC	ESMF	169- 84
♦ FSC	ITT	
♦ MOTA	MST	
NSC	♦ RAYN	
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♦ CDC	ESMF	169- 85
♦ FSC	ITT	
♦ MOTA	MST	
NSC	♦ RAYN	
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TADI	♦ TII	
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2N2193B	♦ AML	100- 64
♦ CDC	♦ FSC	169- 86
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♦ RAYN	SGSI	
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TEC	♦ TII	
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♦ CDC	ESMF	169- 87
♦ FSC	ITT	
♦ MOTA	NSC	
♦ RAYN	SGSI	
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TEC	♦ TII	
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2N2194A	♦ AML	100- 66
♦ CDC	ESMF	169- 88
♦ FSC	ITT	
♦ MOTA	NSC	
♦ RAYN	SGSI	
SSI	TADI	
♦ TII	TIIB	
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2N2194B	♦ AML	100- 67
♦ CDC	♦ FSC	169- 89
ITT	♦ MOTA	
♦ RAYN	SGSI	
SSI	TADI	
2N2195	♦ AML	97- 70
♦ CDC	ESMF	
ETC	♦ FSC	
ITT	♦ MOTA	
NSC	♦ RAYN	
SGSI	SSI	
	TADI	
2N2195A	♦ AML	97- 71
♦ CDC	ESMF	
ETC	♦ FSC	
ITT	♦ MOTA	
NSC	♦ RAYN	
SGSI	SSI	
	TADI	
2N2195B	♦ AML	97- 72
♦ CDC	ETC	
♦ FSC	ITT	
♦ MOTA	♦ RAYN	
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2N2217	♦△MOTA	102- 26
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CNS	♦ FSC	
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♦ ITT	LTTF	
MULB	♦ NSC	
NTLB	RADF	
♦ RAYN	♦ SES	
SGSI	♦ SPR	
STCB	TADI	
♦ TEC	♦ TII	
TIIB	TIIF	
♦ TRW	UEHK	
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♦ AML	BNT	
CDC	CNS	
ESMF	♦ ETC	
♦ FSC	♦ GIC	
HSC	INTG	
♦ ITT	LTTF	
MISI	MULB	
♦ NPC	♦ NSC	
NTLB	PHIC	
RADF	♦ RAYN	
♦ SES	SGSI	
♦ SPR	STCB	
TADI	♦ TEC	
TFKG	♦ TII	
TIIB	TIIF	
♦ TRW	UEHK	
JAN2N2218	AML	102- 28
APX	GIC	175-107
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TEC	TII	
2N2218A	♦△MOTA	102- 29
♦ AML	BNT	175- 57
CDC	ESMF	
ETC	♦ FSC	
GIC	HSC	
INTG	ITT	
LTTF	MISI	
MULB	♦ NSC	
NTLB	♦ RAYN	
SGSI	♦ SPR	
STCB	TADI	
TEC	♦ TII	
TIIB	TIIF	
♦ TRW	UEHK	
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GIC	MOTA	175- 88
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2N2219	♦△MOTA	102- 31
♦ AML	APX	
BNT	♦ CDC	
CNS	ESMF	
♦ ETC	♦ FSC	
♦ GIC	HSC	
IDC	INTG	
♦ ITT	LTTF	
MISI	MULB	
♦ NPC	♦ NSC	
NTLB	PHIC	
RADF	♦ RAYN	
♦ SES	SGSI	
♦ SPR	STCB	
TADI	♦ TEC	
TFKG	♦ TII	
TIIB	TIIF	
♦ TRW	UEHK	
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JAN2N2219	AML	102- 32
APX	GESY	175-108
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TEC	TII	
2N2219A	♦△MOTA	102- 58
♦ AML	BNT	176- 98
CDC	ESMF	
ETC	♦ FSC	
GIC	HSC	
INTG	ITT	
LTTF	MISI	
MULB	♦ NSC	
NTLB	PHIC	
RADF	♦ RAYN	
♦ SES	SGSI	
♦ SPR	STCB	
TADI	♦ TEC	
TFKG	♦ TII	
TIIB	TIIF	
♦ TRW	UEHK	
	VALG	
JAN2N2219A	AML	102- 33
GIC	MOTA	175- 89
NSC	TII	
2N2220	♦△MOTA	96- 34
♦ AML	BNT	
♦ CDC	♦ FSC	
♦ GIC	♦ ITT	
LTTF	MULB	
♦ NSC	NTLB	
♦ RAYN	♦ SES	
SGSI	♦ SPR	
STCB	TADI	
♦ TEC	♦ TII	
TIIB	TIIF	
♦ TRW	UEHK	
2N2220A	BNT	96- 81
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2N2221	♦△MOTA	96- 35
♦ AML	BNT	
♦ CDC	CNS	
ESMF	♦ ETC	
♦ FSC	♦ GIC	

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	MULB ♦NPC	
	♦NSC NTLB	
	PHIC RADF	
	♦RAYN ♦SES	
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	STCB TADI	
	♦TEC TFKG	
	♦TII TIIB	
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	ETC ♦FSC	
	GIC HSC	
	INTG ITT	
	LTTF MISI	
	MULB ♦NSC	
	NTLB ♦RAYN	
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	STCB TADI	
	TEC ♦TII	
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	♦NSC NTLB	
	♦RAYN SGSI	
	♦SPR STCB	
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	♦TII TIIB	
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	MISI ♦MOTA	
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	SIL SLA	
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	SIL SLA	
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TYPE No.	MFRS	Pg&Line
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	TIIB TIIF	
	UEHK VALG	
2N2369	♦△FSC	93-10
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	♦CDC ♦ETC	
	FERB GIC	
	HSC HUGS	
	INTG ♦ITT	
	LTTF MINA	
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	MULB ♦NPC	
	NSC NTLB	
	PHIC PHIN	
	RADF ♦RAYN	
	SES SGSI	
	STCB TADI	
	♦TEC ♦TII	
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	UEHK VALG	
2N2369/46	SCA	94-25
2N2369/TNT	TEC	73-15
2N2369A	♦△FSC	92-87
	♦AML BELI	179-48
	♦CDC FERB	
	GIC HUGS	
	INTG ♦ITT	
	MINA MISI	
	♦MOTA MULB	
	NSC NTLB	
	PHIC ♦RAYN	
	♦RCA SES	
	SGSI STCB	
	TADI TEC	
	♦TII TIIB	
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		VALG
JAN2N2369A	APX	92-88
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2N2370	♦CRY	61-53
	RAYN	
2N2371	♦CRY	61-54
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2N2372	♦CRY	60-77
	RAYN	
2N2373	♦CRY	60-78
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2N2374	CNS	55-23
	♦ETC GIC	
	ITC MST	
2N2375	♦ETC	55-17
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2N2376	♦ETC	55-18
	GIC	
2N2377	♦△SPR	61-16
	♦CRY	
JAN2N2377	CRY	60-102
	SPR	
2N2378	♦△SPR	61-17
	♦CRY	
JAN2N2378	CRY	60-96
	SPR	
2N2380	RAYN	98-33
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2N2380A	RAYN	98-34
		171-78
2N2381	♦△MOTA	55-86
		176-88
2N2382	♦△MOTA	55-87
		176-89
2N2383	♦△SIL	149-41
ETC	SEN	
2N2384	♦△SIL	149-42
	SEN	
2N2386	♦△TII	106-7
AML	IDC	
♦SIX	TIIB	
TIIF	♦UCC	
2N2386A	♦△TII	106-8
2N2387	♦△TII	83-109
TIIB	TIIF	
2N2388	♦△TII	83-110
TIIB	TIIF	
2N2389	♦△TII	94-57
	TIIF	170-37
2N2390	♦△TII	94-58
	TIIF	
2N2393	♦△TII	70-2
	TIIF	
2N2394	♦△TII	70-3
	TIIF	
2N2395	♦△TII	94-52
	TIIF	
2N2396	♦△TII	94-53
	TIIF	
2N2398	♦SPR	45-43
2N2399	♦SPR	45-44
2N2400	♦SPR	51-57
		172-104
2N2401	♦SPR	51-58
		175-6
2N2402	IDC	51-70
	♦SPR	176-57
2N2405	♦△RCA	130-90
MOTA	♦RAYN	
TEC	♦TRW	

TYPE No.	MFRS	Pg&Line
2N2410	♦△TII	102-13
ETC	♦FSC	175-1
LTTF	♦MOTA	
MULB	PHIC	
RADF	RAYN	
SGSI	TEC	
TIIB	TIIF	
	VALG	
2N2411	♦△TII	64-83
MULB	PHIC	173-74
TADI	TEC	
TIIB	TIIF	
2N2412	♦△TII	64-84
MULB	PHIC	173-75
SCA	TADI	
TEC	TIIB	
	TIIF	
2N2413	TADI	86-102
TII	TIIB	
2N2414	RAYN	95-13
		182-9
2N2415	♦△TII	45-95
	♦MOTA	
2N2416	♦△TII	45-87
♦MOTA	TIIB	
2N2417	♦△GESY	187-103
2N2417A	♦△GESY	187-104
JAN2N2417A	none	187-105
2N2417B	△GESY	187-106
2N2418	♦△GESY	187-107
2N2418A	♦△GESY	187-108
JAN2N2418A	none	187-109
2N2418B	♦△GESY	187-110
2N2419	♦△GESY	188-1
2N2419A	♦△GESY	188-2
JAN2N2419A	none	188-3
2N2419B	♦△GESY	188-4
2N2420	♦△GESY	188-5
2N2420A	♦△GESY	188-6
JAN2N2420A	none	188-7
2N2420B	♦△GESY	188-8
2N2421	♦△GESY	188-9
2N2421A	♦△GESY	188-10
JAN2N2421A	none	188-11
2N2421B	♦△GESY	188-12
2N2422	♦△GESY	188-13
2N2422A	♦△GESY	188-14
JAN2N2422A	none	188-15
2N2422B	♦△GESY	188-16
2N2423	KSC	122-13
MOTA	SOD	
2N2424	♦CRY	68-4
		166-92
2N2425	♦CRY	68-3
		166-30
2N2427	♦△TEC	95-14
	SCA	
2N2428	♦△APX	52-16
♦NPC	PHIC	
2N2429	♦△APX	52-18
♦NPC	PHIC	
2N2430	♦△APX	59-23
♦NPC	PHIC	
2N2431	♦△APX	54-37
♦NPC	PHIC	
2N2431MP	APX	182-10
	PHIC	
2N2432	♦△TII	83-95
♦CRY	♦NSC	188-102
TADI	TEC	
	TIIF	
JAN2N2432	CRY	84-27
NSC	TEC	
	TII	
2N2432A	△TII	83-96
CRY	TADI	188-103
TEC	TIIF	
JAN2N2432A	CRY	84-28
TEC	TII	
2N2433	♦△CDC	95-63
2N2434	♦△CDC	95-68
	SCA	
2N2435	♦△CDC	95-64
SCA	TEC	
2N2436	♦△CDC	95-69
SCA	TEC	
2N2437	♦△CDC	95-58
	TEC	
2N2438	♦△CDC	95-65
	TEC	
2N2439	♦△CDC	95-70
	TEC	
2N2440	♦△CDC	101-55
SSI	♦TRW	
2N2443	♦△FSC	100-70
♦CDC	SGSI	
SSI	TEC	
	♦TRW	
2N2444	KSC	119-12
	SOD	
2N2445	△SOD	122-14
2N2451	△SPR	43-30
		191-110
2N2452	♦△FSC	186-80
	SGSI	
2N2453	♦△AML	77-84
BNT	♦GESY	182-11
GIC	♦MOTA	
NSC	♦RAYN	
SGSI	SOD	
TADI	TEC	
♦TII	TIIF	
2N2453A	♦△AML	77-85

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♦MOTA	NSC	
RAYN	SOD	
TADI	TEC	
	TIIF	
2N2459	♦△SOD	93 - 96
	SCA	
2N2460	♦△SOD	93 - 97
	SCA	
2N2461	♦△SOD	93 - 98
	SCA	
2N2462	♦△SOD	93 - 99
	SCA	
2N2463	♦△SOD	96 - 9
SCA	TEC	
2N2464	♦△SOD	96 - 10
SCA	TEC	
2N2465	♦△SOD	96 - 11
SCA	TEC	
2N2466	♦△SOD	96 - 12
SCA	TEC	
2N2467	♦△SOD	113 - 38
2N2468	♦△SOD	113 - 39
2N2469	♦△SOD	113 - 40
2N2472	SCA	138 - 65
2N2474	♦△CRY	181 - 27
2N2475	♦△RCA	88 - 11
ETC	FERB	180 - 44
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PHIC	RADF	
SGSI	TADI	
♦TEC	TIIF	
	VALG	
2N2476	♦△RCA	98 - 66
♦ETC	FERB	175 - 59
♦FSC	♦MOTA	
RAYN	SGSI	
	♦SPR	
2N2477	♦△RCA	98 - 67
♦ETC	FERB	175 - 60
♦FSC	♦MOTA	
RAYN	SGSI	
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2N2478	♦ETC	98 - 58
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♦RAYN	SGSI	
SSI	TADI	
2N2480A	♦△GESY	84 - 53
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♦RAYN	SGSI	
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2N2481	♦△MOTA	91 -105
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TADI	♦TII	
JAN2N2481	FSC	91 -106
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2N2483	♦△FSC	90 - 43
AKER	♦AML	
CDC	ESMF	
GIC	♦ITT	
MISI	MULB	
♦NSC	NTLB	
PHIC	RADF	
♦RAYN	SES	
SGSI	♦SOD	
TADI	♦TEC	
♦TII	TIIB	
TIIF	VALG	
2N2484	♦△FSC	90 - 44
AKER	♦AML	
CDC	ESMF	
♦GIC	IDC	
♦ITT	MISI	
MULB	♦NSC	
NTLB	PHIC	
RADF	♦RAYN	
SES	SGSI	
♦SOD	TADI	
♦TEC	♦TII	
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2N2484A	♦△AML	90 - 69
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2N2491	♦DEL	123 - 37
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2N2492	♦DEL	123 - 38
♦ETC	♦MOTA	
2N2493	♦DEL	123 - 39
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2N2495	♦△APX	48 - 79
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2N2496	♦△APX	47 - 34
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TYPE No.	MFRS	Pg&Line
2N2497	♦△TII	106 - 9
AML	♦SIX	
TIIB	TIIF	
	♦UCC	
JAN2N2497	none	106 - 10
2N2498	♦△TII	106 - 11
AML	♦SIX	
TIIB	TIIF	
	♦UCC	
JAN2N2498	none	106 - 12
2N2499	♦△TII	106 - 13
AML	♦SIX	
TIIB	TIIF	
	♦UCC	
JAN2N2499	none	106 - 14
2N2500	♦△TII	106 - 15
AML	TIIB	
TIIF	♦UCC	
JAN2N2500	none	106 - 16
2N2501	♦△MOTA	92 - 27
HSC	SCA	177 - 85
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2N2509	♦△AML	89 - 98
CDC	♦FSC	
♦GIC	♦ITT	
♦NSC	PHIC	
RAYN	SES	
SGSI	TADI	
	TEC	
2N2510	♦△AML	89 - 99
CDC	♦FSC	
♦GIC	♦ITT	
♦NSC	PHIC	
RAYN	SES	
SGSI	TADI	
	TEC	
2N2511	♦△AML	89 -100
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♦GIC	♦ITT	
♦NSC	PHIC	
RAYN	SES	
SGSI	TADI	
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2N2514	△SOD	93 - 36
2N2515	♦△SOD	93 - 55
2N2516	♦△SOD	93 - 71
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2N2518	♦△SOD	93 - 72
2N2519	♦△SOD	93 - 73
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2N2520	♦△SOD	93 - 51
2N2521	♦△SOD	93 - 52
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2N2523	♦△SOD	93 - 74
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2N2528	♦△MOTA	119 - 15
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MST	♦RAYN	
SCA	♦SPR	
TADI	TEC	
♦TII	TIIB	
TIIF	♦TRW	
2N2538	♦△MOTA	102 - 36
ETC	HSC	176 - 2
MST	♦RAYN	
SCA	♦SPR	
TADI	TEC	
♦TII	TIIB	
TIIF	♦TRW	
2N2539	♦△MOTA	96 - 42
ETC	HSC	176 - 3
♦RAYN	SCA	
♦SPR	TADI	
TEC	♦TII	
TIIB	TIIF	
	♦TRW	
2N2540	♦△MOTA	96 - 43
ETC	HSC	176 - 4
♦RAYN	SCA	
♦SPR	TADI	
TEC	♦TII	
TIIB	TIIF	
	♦TRW	
2N2541	△RAYN	54 - 14
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2N2552	♦△TII	114 - 81
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	♦SOD	
2N2553	♦△TII	114 - 82
♦KSC	MOTA	
	♦SOD	
JAN2N2553	KSC	56 - 59
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2N2554	♦△TII	114 - 83
♦KSC	MOTA	
	♦SOD	
2N2555	♦△TII	114 - 84
♦KSC	MOTA	
	♦SOD	
JAN2N2555	KSC	56 - 60
SOD	TII	
2N2556	♦△TII	114 - 85
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TYPE No.	MFRS	Pg&Line
2N2556		
(cont.)	♦KSC	
MOTA	♦SOD	
2N2557	♦△TII	114 - 86
♦KSC	MOTA	
	♦SOD	
JAN2N2557	KSC	113 - 16
SOD	TII	
2N2558	♦△TII	114 - 87
♦KSC	MOTA	
	♦SOD	
2N2559	♦△TII	114 - 88
♦KSC	MOTA	
	♦SOD	
JAN2N2559	KSC	113 - 17
SOD	TII	
2N2560	♦△TII	114 - 89
♦KSC	MOTA	
	♦SOD	
2N2561	♦△TII	114 - 90
♦KSC	MOTA	
	♦SOD	
2N2562	♦△TII	114 - 91
♦KSC	MOTA	
	♦SOD	
2N2563	♦△TII	114 - 92
♦KSC	MOTA	
	♦SOD	
2N2564	♦△TII	114 - 93
♦KSC	MOTA	
	♦SOD	
2N2564/5	KSC	113 - 27
2N2565	♦△TII	114 - 94
♦KSC	MOTA	
	♦SOD	
2N2565/5	KSC	113 - 28
2N2566	♦△TII	114 - 95
♦KSC	♦SOD	
2N2566/5	KSC	113 - 29
2N2567	♦△TII	114 - 96
♦KSC	MOTA	
	♦SOD	
2N2567/5	KSC	113 - 30
2N2569	♦△APX	85 - 26
MULB	PHIC	188 -104
PHIN	RADF	
	VALG	
2N2570	♦△APX	85 - 27
MULB	PHIC	188 -105
PHIN	RADF	
TEC	VALG	
2N2580	♦△DEL	155 - 40
SEN	SOD	163 - 36
2N2580M	♦DEL	155 - 41
		164 - 63
2N2581	♦△DEL	155 - 42
SEN	SOD	163 - 37
2N2582	♦△DEL	155 - 43
SEN	SOD	163 - 38
2N2583	♦△DEL	155 - 44
SEN	SOD	163 - 39
2N2584	SOD	155 - 45
		163 - 40
2N2585	SOD	155 - 46
		163 - 41
2N2586	♦△TII	84 - 76
♦AML	CDC	
♦FSC	♦ITT	
NSC	PHIC	
RAYN	SES	
SGSI	SOD	
TADI	TEC	
	TIIF	
2N2590	♦△SOD	69 - 27
SCA	TEC	
2N2591	♦△SOD	69 - 28
SCA	TEC	
2N2592	♦△SOD	69 - 29
SCA	TEC	
2N2593	♦△SOD	69 - 30
SCA	TEC	
2N2594	SSI	134 - 12
	TEC	
2N2595	♦△SOD	69 - 14
SCA	TEC	
2N2596	♦△SOD	69 - 15
SCA	TEC	
2N2597	♦△SOD	69 - 16
SCA	TEC	
2N2598	♦△SOD	69 - 17
	TEC	
2N2599	♦△SOD	69 - 18
	TEC	
2N2599A	♦△SOD	68 - 92
	TEC	
2N2600	♦△SOD	69 - 19
SSI	TEC	
2N2600A	♦△SOD	69 - 6
SSI	TEC	
2N2601	♦△SOD	68 -106
♦AML	SCA	
SSI	TEC	
2N2602	♦△SOD	68 -107
♦AML	SCA	
SSI	TEC	
2N2603	♦△SOD	68 -108
♦AML	SCA	
SSI	TEC	
2N2604	♦△SOD	69 - 31
♦AML	♦MOTA	
♦NSC	♦RAYN	
SCA	SSI	
TADI	♦TEC	
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TYPE No.	MFRS	Pg&Line
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(cont.)	♦TII	
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JAN2N2604	NSC	67 - 78
	SOD	
2N2605	♦△SOD	69 - 32
♦AML	♦FSC	
♦MOTA	♦NSC	
♦RAYN	SSI	
TADI	♦TEC	
♦TII	TIIB	
	TIIF	
JAN2N2605	NSC	67 - 79
	SOD	
2N2605A	♦△SOD	68 -102
TADI	TEC	
2N2606	♦△SIX	104 - 90
♦AML	♦FSC	
JAN2N2606	AML	104 - 91
	SIX	
2N2607	♦△SIX	104 - 92
♦AML	♦UCC	
JAN2N2607	AML	104 - 93
	SIX	
2N2608	♦△SIX	104 - 94
♦AML	♦UCC	
JAN2N2608	AML	104 - 95
	SIX	
2N2609	♦△SIX	104 - 96
♦AML	FSC	
	♦UCC	
JAN2N2609	AML	104 - 97
	SIX	
2N2610	△TEC	73 -100
	SCA	
2N2611	♦△GESY	138 - 66
	SCA	
2N2612	△SOD	119 - 16
2N2613	♦△RCA	48 - 16
ATEI	♦NPC	
2N2614	♦△RCA	48 - 17
ATEI	♦NPC	
2N2615	ITT	88 - 12
2N2616	♦△FSC	88 - 17
♦AML	CDC	
ITT	LTTF	
SGSI	TADI	
2N2617	PHIC	82 - 20
2N2631	♦△RCA	140 - 65
	ECD	
JAN2N2631	none	136 - 94
2N2632	△SOD	145 - 50
SEN	SIL	
	TEC	
2N2633	△SOD	145 - 51
SEN	SIL	
	TEC	
2N2634	△SOD	145 - 52
SEN	SIL	
	TEC	
2N2635	♦△TII	51 - 72
♦MOTA	SSI	176 - 72
2N2636	♦△SOD	122 - 15
2N2637	♦△SOD	122 - 16
2N2638	♦△SOD	122 - 17
2N2639	♦△TII	84 - 16
♦AML	ESMF	182 - 15
♦FSC	♦GESY	
GIC	MISI	
♦MOTA	♦NSC	
♦RAYN	SGSI	
♦SOD	SSI	
TADI	♦TEC	
TIIB	TIIF	
JAN2N2639	none	84 - 22
		182 - 16
2N2640	♦△TII	84 - 17
♦AML	ESMF	182 - 17
♦FSC	♦GESY	
GIC	MISI	
♦MOTA	♦NSC	
♦RAYN	SGSI	
♦SOD	SSI	
TADI	♦TEC	
TIIB	TIIF	
2N2642	♦△TII	84 - 19
♦AML	ESMF	182 - 18
♦FSC	♦GESY	
GIC	MISI	
♦MOTA	♦NSC	
♦RAYN	SGSI	
♦SOD	SSI	
TADI	♦TEC	
TIIB	TIIF	
JAN2N2642	AML	84 - 23
	TII	182 - 19
2N2643	♦△TII	84 - 20
♦AML	ESMF	182 - 20
♦FSC	GESY	
GIC	MISI	
♦MOTA	♦NSC	
♦RAYN	SEN	
SGSI	♦SOD	
SSI	TADI	
cont.next col.		

TYPE No.	MFRS	Pg&Line
2N2643		
(cont.)	TEC	
TIIB	TIIF	
2N2644	♦△TII	84 - 21
♦AML	ESMF	190 - 37
♦FSC	♦GESY	
GIC	MISI	
♦MOTA	♦NSC	
♦RAYN	SGSI	
♦SOD	SSI	
TADI	♦TEC	
TIIB	TIIF	
2N2645	♦△FSC	95 - 15
RAYN	SES	
SGSI	TADI	
2N2646	♦△GESY	188 - 17
ESMF	♦MOTA	
♦NPC	SOIF	
2N2647	♦△GESY	188 - 18
ESMF	♦MOTA	
♦NPC	SOIF	
2N2648	ETC	55 - 78
		167 - 47
2N2651	♦ETC	92 -105
	SGSI	180 - 18
2N2652	♦△GESY	84 - 77
♦MOTA	♦RAYN	182 - 21
SGSI	SSI	
	TADI	
2N2652A	♦△GESY	84 - 78
♦MOTA	♦RAYN	182 - 22
SGSI	SSI	
	TADI	
2N2654	♦△APX	47 - 91
	PHIC	
2N2656	△TRW	91 - 53
2N2657	♦△SOD	135 - 48
♦NSC	♦PIR	167 - 6
♦SIL	SSI	
♦SSP	TEC	
2N2658	♦△SOD	135 - 49
♦NSC	♦PIR	167 - 7
SEN	♦SIL	
SSI	♦SSP	
	TEC	
2N2659	♦△TII	114 - 24
	KSC	
2N2660	♦△TII	114 - 25
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2N2661	♦△TII	114 - 26
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2N2662	♦△TII	114 - 27
	KSC	
2N2663	♦△TII	114 - 28
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2N2664	♦△TII	114 - 29
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2N2665	♦△TII	114 - 30
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2N2666	♦△TII	114 - 31
	♦KSC	
2N2667	♦△TII	114 - 32
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2N2668	♦△TII	114 - 33
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2N2669	♦△TII	114 - 34
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2N2670	♦△TII	114 - 35
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2N2671	♦△APX	47 - 35
2N2672	♦△APX	47 - 36
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2N2691A	△SOD	123 - 40
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2N2693	♦△TII	84 - 43
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2N2694	♦△TII	84 - 44
SCA	TADI	169 - 62
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♦TII	TIIB	
2N2696	♦△FSC	67 - 2
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TEC	♦TII	
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2N2698	△SOD	140 - 67
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2N2706	♦△APX	55 - 54
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2N2708	♦△RCA	80 - 53
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CDC	ETC	
FERB	♦RAYN	
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2N2710	♦MOTA	92 - 89
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2N2712	♦△GESY	76 - 88
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2N2715	TEK	76 - 91
2N2716	TEK	76 - 92
2N2717	PHIC	47 -101
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♦AML	♦MOTA	182 - 24
	TADI	
2N2721	♦△SOD	85 - 16
♦AML	♦MOTA	182 - 25
	TADI	
2N2722	♦△SOD	85 - 28
♦AML	♦MOTA	182 - 26
NSC	TADI	
2N2723	♦△SOD	190 - 38
♦MOTA	RAYN	
2N2724	♦△SOD	190 - 39
♦MOTA	RAYN	
2N2725	♦△SOD	190 - 40
♦MOTA	RAYN	
2N2726	♦△GESY	130 - 85
MST	TEC	
2N2727	♦△GESY	130 - 86
	TEC	
2N2728	♦△MOTA	123 - 41
		162 - 78
2N2729	♦△FSC	88 - 18
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LTTF	TADI	
2N2730	♦△SOD	123 - 42
2N2731	♦△SOD	123 - 43
2N2732	♦△SOD	123 - 44
2N2733	♦△SOD	122 - 65
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2N2735	♦△SOD	122 - 67
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2N2741	♦△WESY	156 - 31
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2N2742	♦△WESY	156 - 32
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2N2744	SLA	156 - 34
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SEN	SLA	161 - 44
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2N2746	♦△WESY	156 - 36
SEN	SLA	161 - 45
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2N2747	♦△WESY	156 - 37
SEN	SLA	161 - 46
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2N2748	♦△WESY	156 - 38
SEN	SLA	161 - 47
	SPC	
2N2751	♦△WESY	156 - 39
SEN	SLA	161 - 63
	SPC	
2N2752	♦△WESY	156 - 40
SEN	SLA	161 - 64
	SPC	
2N2753	♦△WESY	156 - 41
SEN	SLA	161 - 65
	SPC	
2N2754	♦△WESY	156 - 42
SEN	SLA	161 - 66
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2N2756	SLA	156 - 44
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2N2757	♦△WESY	156 - 45
SEN	♦SIL	161 - 48
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	SSI	
2N2758	♦△WESY	156 - 46
SEN	♦SIL	161 - 49
SLA	SPC	
	SSI	
2N2759	♦△WESY	156 - 47
SEN	♦SIL	161 - 50
SLA	SPC	
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2N2760	♦△WESY	156 - 48
SEN	♦SIL	161 - 51
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2N2761	♦△WESY	156 - 49
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2N2766	♦△WESY	156 - 54
SEN	♦SIL	161 - 57
SLA	SPC	
SSI	UCC	
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2N2768	SSI	156 - 56
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2N2769	♦△WESY	156 - 57
SEN	♦SIL	161 - 69
SLA	SPC	
	SSI	
2N2770	♦△WESY	156 - 58
SEN	♦SIL	161 - 70
SLA	SPC	
	SSI	
2N2771	♦△WESY	156 - 59
SEN	♦SIL	161 - 71
SLA	SPC	
	SSI	
2N2772	♦△WESY	156 - 60
SEN	♦SIL	161 - 72
SLA	SPC	
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2N2773	SSI	156 - 61
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2N2774	SSI	156 - 62
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2N2776	♦△WESY	156 - 64
SLA	SPC	161 - 77
	SSI	
2N2777	♦△WESY	156 - 65
SLA	SPC	161 - 78
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2N2778	♦△WESY	156 - 66
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2N2779	SSI	156 - 67
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SEN	SSI	
2N2782	♦△TRW	140 - 69
LTTF	SCA	
SEN	SSI	
2N2783	♦△TRW	140 - 70
LTTF	SCA	
SEN	SSI	
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ETC	SCA	176 - 30
2N2788	♦△GIC	102 - 38
ETC	MOTA	176 - 31
	SCA	
2N2789	♦△GIC	102 - 39
ETC	MOTA	176 - 32
	SCA	
2N2790	♦△GIC	96 - 44
	SCA	176 - 33
2N2791	♦△GIC	96 - 45
ETC	MOTA	176 - 34
	SCA	
2N2792	♦△GIC	96 - 46
ETC	MOTA	176 - 35
	SCA	
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2N2796	♦△SPR	45 - 86
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2N2800/46	SCA	69 - 58
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2N2801	♦△MOTA	71 - 82
BNT	ITT	171 - 99
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2N2801/46	SCA	69 - 59
2N2802	♦△TII	62-107
GIC	♦MOTA	182 - 27
RAYN	SOD	
SSI	TADI	
TIIB	TIIF	
2N2803	♦△TII	62-108
GIC	♦MOTA	182 - 28
RAYN	SOD	
SSI	TADI	
TIIB	TIIF	
2N2804	♦△TII	62-109
GIC	♦MOTA	190 - 42
RAYN	SOD	
SSI	TADI	
TIIB	TIIF	

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2N2805	♦△TII	62-110
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RAYN	SOD	
SSI	TADI	
TIIB	TIIF	
2N2806	♦△TII	63 - 1
GIC	♦MOTA	182 - 30
RAYN	SOD	
SSI	TADI	
TIIB	TIIF	
2N2807	♦△TII	63 - 2
GIC	♦MOTA	190 - 43
RAYN	SOD	
SSI	TADI	
TIIB	TIIF	
2N2811	△SOD	147 - 85
♦FSC	PIR	
SEN	SSP	
	TEC	
2N2812	△SOD	147 - 86
♦FSC	PIR	
SEN	SSP	
	TEC	
2N2813	△SOD	147 - 87
♦FSC	PIR	
SEN	SSP	
	TEC	
2N2814	△SOD	147 - 88
♦FSC	PIR	
SEN	SSP	
TEC	TRW	
2N2815	♦△SIL	154 - 58
ESMF	♦ETC	
SEN	♦SPC	
	SSI	
2N2816	♦△SIL	154 - 59
ESMF	♦ETC	
SEN	♦SPC	
	SSI	
2N2817	♦△SIL	154 - 60
ESMF	ETC	
SEN	♦SPC	
	SSI	
2N2818	♦△SIL	154 - 61
ESMF	♦ETC	
SEN	♦SPC	
	SSI	
2N2819	♦△SIL	154 - 62
ESMF	SEN	
SPC	SSI	
2N2820	♦△SIL	154 - 63
ESMF	SEN	
SPC	SSI	
2N2821	♦△SIL	154 - 64
ESMF	SEN	
SPC	SSI	
2N2822	♦△SIL	154 - 65
ESMF	SEN	
SPC	SSI	
2N2823	♦△SIL	154 - 66
ESMF	SEN	
SPC	SSI	
2N2824	♦△SIL	154 - 67
ESMF	SEN	
SPC	SSI	
2N2825	♦△SIL	154 - 68
ESMF	SEN	
SPC	SSI	
2N2828	♦△SIL	145 - 11
SEN	SPC	
	SSP	
2N2829	♦△SIL	145 - 99
SPC	SSP	
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2N2832	♦△MOTA	119 - 17
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2N2833	♦△MOTA	119 - 18
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2N2834	♦△MOTA	119 - 19
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JAN2N2834	MOTA	119 - 20
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2N2835	PHIC	114 - 44
2N2836	PHIC	116 - 51
2N2837	♦△MOTA	70 - 34
ETC	♦GIC	171-100
ITT	♦RAYN	
	TADI	
2N2838	♦△MOTA	70 - 35
ETC	GIC	171-101
ITT	♦RAYN	
	TADI	
2N2840	♦△GESY	188 - 19
2N2841	♦△SIX	104 - 98
	AML	
2N2842	♦△SIX	104 - 99
	AML	
2N2843	△SIX	104-100
AML	UCC	
2N2844	♦△SIX	104-101
	♦UCC	
2N2845	♦△FSC	91 - 54
ETC	♦MOTA	176 - 5
RAYN	SGSI	
♦SPR	SSI	
TADI	TEC	
	TIIF	
2N2846	♦△FSC	102 - 40
ETC	♦MOTA	176 - 6
NPC	RAYN	
SGSI	SSI	
TADI	TEC	
	TIIF	

TYPE No.	MFRS	Pg&Line
2N2847	♦△FSC	91 - 55
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RAYN	SGSI	
SSI	TADI	
TEC	TIIF	
2N2848	♦△FSC	102 - 41
ETC	♦MOTA	175 - 62
RAYN	SGSI	
SSI	TADI	
TEC	TIIF	
2N2849	♦△SSP	102 - 97
SEN	SSI	168 - 26
2N2850	♦△SSP	102 - 98
SEN	SSI	168 - 27
2N2850-1	SEN	102 - 91
SOD	SSI	168 - 28
2N2851	♦△SSP	102 - 99
SEN	SSI	168 - 29
2N2851-1	SEN	102 - 92
SOD	SSI	168 - 30
2N2852	♦△SSP	102-100
SEN	SSI	168 - 31
2N2852-1	SEN	102 - 93
SOD	SSI	168 - 32
2N2853	♦△SSP	102-101
SEN	SSI	168 - 33
2N2853-1	SEN	102 - 94
SOD	SSI	168 - 34
2N2854	♦△SSP	102-102
SEN	SSI	168 - 35
2N2855	♦△SSP	102 03
	SSI	168 36
2N2855-1	SOD	102 - 95
	SSI	168 - 37
2N2856	♦△SSP	102-104
	SSI	168 - 38
2N2856-1	SOD	102 - 96
	SSI	168 - 39
2N2857	♦APX	81 - 5
FERB	♦KMC	
♦MOTA	PHIC	
RADF	♦RCA	
SCA	SSI	
	VALG	
JAN2N2857	MOTA	80 - 6
	RCA	
2N2858	♦△SIL	97 - 20
♦SLA	SPC	164 - 27
SSP	TEC	
JAN2N2858	none	140 - 20
		165 - 82
2N2859	♦△SIL	97 - 21
♦SLA	SPC	164 - 28
SSP	TEC	
JAN2N2859	none	140 - 21
		165 - 83
2N2861	♦△TII	64 - 9
RAYN	TADI	
TEC	TIIB	
2N2862	♦△TII	64 - 8
RAYN	TADI	
TEC	TIIB	
2N2863	♦△TII	101-104
TADI	TEC	
TIIB	TIIF	
2N2864	♦△TII	101-105
TADI	TEC	
TIIB	TIIF	
2N2865	♦△TII	79 - 65
♦AML	ETC	
RAYN	SCA	
SSI	TADI	
TIIB	TIIF	
2N2866	♦△TEC	145 - 53
	SEN	
2N2867	♦△TEC	145 - 54
	SEN	
2N2868	ESMF	100 - 71
ETC	♦FSC	
ITT	RAYN	
SGSI	♦TRW	
2N2869	♦△RCA	117 - 27
♦ETC	KSC	
	SOD	
2N2870/2N301A		117 - 30
ATEI	RCA	
2N2874	♦△TRW	140 - 71
	SEN	
2N2875	♦△TEC	126-106
2N2876	♦△RCA	136 - 95
	♦ECD	
JAN2N2876	none	140 - 72
2N2877	△SOD	145-100
♦PIR	SEN	168 - 21
♦SIL	SSP	
	TEC	
2N2878	△SOD	145-101
♦NSC	♦PIR	169 - 99
SEN	♦SIL	
SSP	TEC	
2N2879	△SOD	145-102
♦PIR	SEN	168 - 22
♦SIL	SSP	
	TEC	
2N2880	△SOD	145-103
♦NSC	♦PIR	169-100
SEN	♦SIL	
SSP	TEC	
	TRW	

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JAN2N2880	SOD	145-104
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♦CRY	TEC	
2N2882	♦△SIL	126 - 23
♦CRY	TEC	
2N2883	TADI	102 - 72
	♦TII	
2N2884	TADI	102 - 73
	♦TII	
2N2887	♦△TRW	142 - 12
ECD	SEN	
2N2890	♦△FSC	100 - 19
ESMF	♦NSC	167 - 93
SGSI	SOD	
SSI	♦SSP	
TADI	TEC	
2N2891	♦△FSC	100 - 20
ESMF	♦NSC	167 - 94
SGSI	SOD	
SSI	♦SSP	
TADI	TEC	
	TIIF	
2N2892	♦△FSC	143 - 51
♦NSC	SEN	168 - 54
SOD	SSI	
♦SSP	TEC	
2N2893	♦△FSC	143 - 52
♦NSC	SEN	168 - 55
SOD	SSI	
♦SSP	TEC	
2N2894	♦△FSC	67 - 89
ESMF	FERB	178 - 95
HSC	♦ITT	
MISI	♦MOTA	
♦RAYN	SGSI	
STCB	TADI	
TEC	♦TII	
TIIB	TIIF	
	UEHK	
2N2894A	♦△FSC	67-109
	ITT	180 - 52
2N2895	♦△RCA	95-109
♦CDC	♦MOTA	
♦RAYN	TEC	
2N2896	♦△RCA	95-110
♦CDC	♦MOTA	
RAYN	TEC	
2N2897	♦△RCA	95 - 85
♦CDC	♦MOTA	
RAYN	TEC	
2N2898	♦CDC	96 - 1
RAYN	SCA	
	TEC	
2N2899	♦CDC	96 - 2
RAYN	SCA	
	TEC	
2N2900	♦CDC	95 - 86
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	TEC	
2N2903	♦△AML	77 - 86
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♦RAYN	SGSI	
SOD	TADI	
	TEC	
2N2903A	♦△AML	77 - 87
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NSC	♦RAYN	
SGSI	SOD	
TADI	TEC	
2N2904	♦△MOTA	70-108
AKER	♦AML	174 - 4
BNT	CDC	
CNS	ESMF	
ETC	♦FSC	
♦GIC	HSC	
HUGS	INTG	
ITT	MISI	
MST	MULB	
NPC	♦NSC	
NTLB	PHIC	
RADF	♦RAYN	
♦SES	SGSI	
♦SOD	♦SPR	
STCB	TADI	
♦TEC	♦TII	
TIIB	TIIF	
UEHK	VALG	
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SPR	TEC	
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2N2904A	♦△MOTA	70-110
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ESMF	♦FSC	
♦GIC	HSC	
HUGS	INTG	
♦ITT	MISI	
MULB	♦NSC	
NTLB	PHIC	
RADF	♦RAYN	
♦SES	SGSI	
♦SOD	♦SPR	
STCB	TADI	
♦TEC	♦TII	
TIIB	TIIF	
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CNS	ESMF	
ETC	♦ FSC	
♦ GIC	HSC	
HUGS	IDC	
INTG	ITT	
MISI	MST	
MULB	♦ NSC	
NTLB	PHIC	
RADF	♦ RAYN	
♦ SES	SGSI	
♦ SOD	♦ SPR	
STCB	TADI	
♦ TEC	♦ TII	
TIIB	TIIF	
UEHK	VALG	
JAN2N2905	AML	71- 3
GIC	MOTA	174- 63
NSC	RAYN	
SPR	TEC	
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2N2905A	♦△MOTA	71- 4
AKER	♦ AML	174- 7
BNT	CNS	
ESMF	♦ FSC	
♦ GIC	HSC	
HUGS	INTG	
♦ ITT	MISI	
MULB	♦ NSC	
NTLB	PHIC	
RADF	♦ RAYN	
♦ SES	SGSI	
♦ SOD	♦ SPR	
STCB	TADI	
♦ TEC	♦ TII	
TIIB	TIIF	
UEHK	VALG	
JAN2N2905A	AML	71- 5
MOTA	NSC	174- 64
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CDC	ESMF	
ETC	♦ FSC	
♦ GIC	HSC	
HUGS	INTG	
ITT	MISI	
MST	MULB	
NPC	♦ NSC	
NTLB	♦ RAYN	
♦ SES	SGSI	
♦ SOD	♦ SPR	
STCB	TADI	
♦ TEC	♦ TII	
TIIB	TIIF	
	UEHK	
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GIC	MOTA	174- 65
NSC	RAYN	
TEC	TII	
2N2906A	♦△MOTA	69- 68
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ESMF	♦ FSC	
♦ GIC	HSC	
HUGS	INTG	
♦ ITT	MISI	
MULB	♦ NSC	
NTLB	♦ RAYN	
♦ SES	SGSI	
♦ SOD	♦ SPR	
STCB	TADI	
♦ TEC	♦ TII	
TIIB	TIIF	
	UEHK	
JAN2N2906A	AML	69- 69
GIC	MOTA	174- 66
NSC	RAYN	
TEC	TII	
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♦ AML	BNT	174- 10
♦ CDC	CNS	
ECD	ESMF	
♦ ETC	♦ FSC	
♦ GIC	HSC	
HUGS	INTG	
ITT	MISI	
MST	MULB	
♦ NSC	NTLB	
♦ RAYN	♦ SES	
SGSI	♦ SOD	
♦ SPR	STCB	
TADI	♦ TEC	
♦ TII	TIIB	
TIIF	UEHK	
JAN2N2907	GIC	69- 71
ITT	MOTA	174- 67
NSC	RAYN	
TEC	TII	
2N2907A	♦△MOTA	69- 72
♦ AML	BNT	174- 11
CNS	ESMF	
♦ FSC	♦ GIC	
HSC	HUGS	
INTG	♦ ITT	
MISI	MULB	
♦ NSC	NTLB	
♦ RAYN	♦ SES	
SGSI	♦ SOD	
♦ SPR	STCB	
TADI	♦ TEC	

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TYPE No.	MFRS	Pg&Line
2N2907A		
(cont.)	♦ TII	
TIIB	TIIF	
	UEHK	
JAN2N2907A	AML	69- 73
GIC	MOTA	174- 68
NSC	RAYN	
TEC	TII	
2N2909	SCA	93- 54
	♦ TRW	
2N2910	♦△GESY	84- 73
SSI	TADI	182- 33
	♦ TEC	
2N2911	♦△SIL	136- 96
PIR	♦ SLA	
SPC	SSI	
JAN2N2911	none	140- 22
		165- 84
2N2912	♦△MOTA	119- 21
		166- 41
2N2913	♦△FSC	84- 79
♦ AML	♦ APX	190- 44
BNT	♦ GESY	
GIC	♦ MOTA	
♦ NSC	♦ QDC	
♦ RAYN	SGSI	
♦ SOD	SSI	
TADI	TEC	
♦ TII	TIIB	
TIIF	♦ UCC	
2N2914	♦△FSC	84- 80
♦ AML	♦ APX	190- 45
BNT	♦ GESY	
GIC	♦ MOTA	
♦ NSC	♦ QDC	
♦ RAYN	SGSI	
♦ SOD	SSI	
TADI	TEC	
♦ TII	TIIB	
TIIF	♦ UCC	
2N2915	♦△FSC	84- 81
♦ AML	♦ APX	182- 34
BNT	♦ GESY	
GIC	♦ MOTA	
♦ NSC	♦ QDC	
♦ RAYN	SGSI	
♦ SOD	SSI	
TADI	TEC	
♦ TII	TIIB	
TIIF	♦ UCC	
2N2915A	♦△FSC	84- 82
♦ AML	BNT	182- 35
NSC	RAYN	
SSI	TADI	
	♦ TII	
2N2916	♦△FSC	84- 83
♦ AML	♦ APX	182- 36
BNT	♦ GESY	
GIC	♦ MOTA	
♦ NSC	♦ QDC	
♦ RAYN	SGSI	
♦ SOD	SSI	
TADI	TEC	
♦ TII	TIIB	
TIIF	♦ UCC	
2N2916A	△FSC	84- 84
♦ AML	BNT	182- 37
NSC	RAYN	
SSI	TADI	
	♦ TII	
2N2917	♦△FSC	84- 85
♦ AML	♦ APX	182- 38
BNT	♦ GESY	
GIC	♦ MOTA	
♦ NSC	♦ QDC	
♦ RAYN	SGSI	
♦ SOD	SSI	
TADI	TEC	
♦ TII	TIIB	
TIIF	♦ UCC	
2N2918	♦△FSC	84- 86
♦ AML	♦ APX	182- 39
BNT	♦ GESY	
GIC	♦ MOTA	
♦ NSC	♦ QDC	
♦ RAYN	SGSI	
♦ SOD	SSI	
TADI	TEC	
♦ TII	TIIB	
TIIF	♦ UCC	
2N2919	♦△FSC	84- 87
♦ AML	BNT	182- 40
♦ GESY	GIC	
♦ MOTA	♦ NSC	
♦ QDC	♦ RAYN	
SGSI	♦ SOD	
SSI	TADI	
TEC	♦ TII	
TIIB	TIIF	
	♦ UCC	
JAN2N2919	AML	84- 88
FSC	SOD	182- 41
2N2919A	♦△FSC	84- 89
♦ AML	NSC	182- 42
RAYN	SSI	
TADI	♦ TII	
2N2920	♦△FSC	84- 90
♦ AML	BNT	182- 43
♦ GESY	GIC	
♦ MOTA	♦ NSC	
♦ QDC	♦ RAYN	
SGSI	♦ SOD	
SSI	TADI	

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TYPE No.	MFRS	Pg&Line
2N2920		
(cont.)	TEC	
♦ TII	TIIB	
TIIF	♦ UCC	
JAN2N2920	AML	84- 91
FSC	NSC	182- 44
RAYN	SOD	
	UCC	
2N2920A	△FSC	84- 92
♦ AML	BNT	182- 45
NSC	RAYN	
SSI	TADI	
	♦ TII	
2N2921	ESMF	78- 53
	♦ NPC	
2N2922	ESMF	78- 54
	♦ NPC	
2N2923	♦△GESY	78- 55
ESMF	♦ NPC	
	♦ SPR	
2N2924	♦△GESY	78- 56
ESMF	♦ NPC	
	♦ SPR	
2N2925	♦△GESY	78- 57
ESMF	♦ NPC	
	♦ SPR	
2N2926	♦△GESY	78- 58
CDLF	ESMF	
	♦ SPR	
2N2927	♦△FSC	71- 58
ETC	SGSI	171- 67
TADI	TEC	
2N2929	♦△MOTA	56- 50
2N2930	ETC	55- 13
		165- 9
2N2936	♦ APX	182- 46
♦ RAYN	TADI	
2N2937	♦ APX	182- 47
♦ RAYN	TADI	
2N2938	ETC	85- 29
	FERB	171- 30
2N2939	ETC	101-106
	TEC	
2N2940	ETC	101-107
	TEC	
2N2941	♦ TEC	101-108
2N2944	♦△CRY	68- 71
♦ MOTA	RAYN	166- 87
SOD	♦ SPR	
TADI	♦ TEC	
♦ TII	TIIB	
	TIIF	
2N2944A	♦△TII	68- 72
♦ CRY	RAYN	188-106
TADI	♦ TEC	
	TIIF	
JAN2N2944A	none	188-107
2N2945	♦△CRY	68- 64
♦ MOTA	♦ RAYN	166- 11
SOD	♦ SPR	
TADI	♦ TEC	
♦ TII	TIIB	
	TIIF	
2N2945A	♦△TII	68- 65
♦ CRY	MOTA	188-108
RAYN	TADI	
♦ TEC	TIIF	
JAN2N2945A	TII	68- 66
		188-109
2N2946	♦△CRY	68- 46
♦ MOTA	♦ RAYN	165- 51
SOD	♦ SPR	
TADI	♦ TEC	
♦ TII	TIIB	
	TIIF	
2N2946A	♦△TII	68- 47
♦ CRY	MOTA	188-110
RAYN	TADI	
♦ TEC	TIIF	
JAN2N2946A	TII	68- 48
		189- 1
2N2947	♦△MOTA	142-105
SCA	SSI	
2N2948	♦△MOTA	142-106
SCA	SSI	
2N2949	♦△MOTA	135- 50
SCA	SSI	
2N2950	♦△MOTA	135- 51
SCA	SSI	
2N2951	♦△MOTA	132- 63
ETC	SCA	
SPR	SSI	
	♦ TRW	
2N2952	♦△MOTA	132- 5
ETC	SCA	
SPR	SSI	
2N2953	♦△RCA	48- 33
2N2955	♦△MOTA	51-100
	SSI	174- 12
2N2956	♦△MOTA	51-103
	SSI	175- 84
2N2957	♦△MOTA	51-105
	SSI	176-101
2N2958	♦△MOTA	98- 68
HSC	RAYN	176- 58
♦ SPR	SSI	
	TEC	
2N2959	♦△MOTA	98- 69
ETC	HSC	176- 59
RAYN	♦ SPR	
	TEC	
2N2960	RAYN	98- 70
		176- 60

TYPE No.	MFRS	Pg&Line
2N2961	RAYN	98- 71
		176- 61
2N2968	♦△SPR	181- 28
	♦ CRY	
2N2969	♦△SPR	181- 29
	♦ CRY	
2N2970	♦△SPR	181- 30
	♦ CRY	
2N2971	♦△SPR	181- 31
♦ CRY	TADI	
2N2972	♦△FSC	82- 27
♦ AML	BNT	
GIC	♦ MOTA	
NSC	♦ RAYN	
SGSI	SOD	
TADI	♦ TII	
TIIF	TRW	
2N2973	♦△FSC	82- 28
♦ AML	BNT	
GIC	♦ MOTA	
NSC	♦ RAYN	
SGSI	SOD	
TADI	♦ TII	
TIIF	TRW	
2N2974	♦△FSC	82- 29
♦ AML	BNT	182- 48
GIC	♦ MOTA	
NSC	♦ RAYN	
SGSI	SOD	
TADI	♦ TII	
TIIF	TRW	
2N2975	♦△FSC	82- 30
♦ AML	BNT	182- 49
GIC	♦ MOTA	
NSC	♦ RAYN	
SGSI	SOD	
TADI	♦ TII	
TIIF	TRW	
2N2976	♦△FSC	82- 31
♦ AML	BNT	182- 50
GIC	♦ MOTA	
NSC	♦ RAYN	
SGSI	SOD	
TADI	♦ TII	
TIIF	TRW	
2N2977	♦△FSC	82- 32
♦ AML	BNT	182- 51
GIC	♦ MOTA	
NSC	♦ RAYN	
SGSI	SOD	
TADI	♦ TII	
TIIF	TRW	
2N2978	♦△FSC	82- 33
♦ AML	BNT	182- 52
GIC	♦ MOTA	
NSC	♦ RAYN	
SGSI	SOD	
TADI	♦ TII	
TIIF	TRW	
2N2979	♦△FSC	82- 34
♦ AML	BNT	182- 53
GIC	♦ MOTA	
NSC	♦ RAYN	
SGSI	SOD	
TADI	♦ TII	
TIIF	TRW	
2N2980	♦△FSC	82- 35
GIC	RAYN	182- 54
SGSI	TRW	
2N2981	♦△FSC	82- 25
GIC	RAYN	182- 55
SGSI	TRW	
2N2982	♦△FSC	82- 26
GIC	RAYN	182- 56
SGSI	TRW	
2N2983	SCA	131- 78
SSI	TEC	
2N2984	SCA	131- 79
	TEC	
2N2985	SCA	131- 80
SSI	TEC	
2N2986	SCA	131- 81
	TEC	
2N2987	♦△TII	130- 91
SCA	SOD	
SSI	SSP	
TEC	TIIB	
	TIIF	
2N2988	♦△TII	130- 92
SCA	SSI	
SSP	TEC	
TIIB	TIIF	
2N2989	♦△TII	130- 93
SCA	SOD	
SSI	SSP	
TEC	TIIB	
	TIIF	
2N2990	♦△TII	130- 94
SCA	SSI	
SSP	TEC	
TIIB	TIIF	
2N2991	♦△TII	131-108
SCA	SSI	
SSP	TEC	
TIIB	TIIF	
2N2992	♦△TII	131-109
SCA	SSI	
SSP	TEC	
TIIB	TIIF	
2N2993	♦△TII	131-110
SCA	SSI	
SSP	TEC	
TIIB	TIIF	

TYPE No.	MFRS	Pg&Line
2N2994	♦△TII	132- 1
SCA	SSI	
SSP	TEC	
TIIB	TIIF	
2N2995	△GESY	141- 66
SSI	SSP	
2N2996	♦△TII	45- 94
MOTA	TIIB	
JAN2N2996	none	45- 83
2N2997	♦△TII	45- 98
MOTA	TIIB	
JAN2N2997	none	45- 84
2N2998	♦△TII	45-102
MOTA	TIIB	
2N2999	♦△TII	45-106
	MOTA	
2N3009	♦△FSC	92- 28
♦ ITT	♦ MOTA	177-101
TADI	♦ TII	
	TIIF	
2N3010	♦△FSC	87-106
♦ MOTA	♦ RAYN	180- 11
SGSI	TADI	
♦ TEC	♦ TII	
TIIB	TIIF	
2N3011	♦△FSC	92- 49
♦ ETC	ITT	178- 58
♦ MOTA	NSC	
♦ RAYN	♦ RCA	
SES	SGSI	
TADI	TEC	
♦ TII	TIIB	
TIIF	UEHK	
2N3012	♦△FSC	67- 90
ITT	NSC	178- 96
♦ RAYN	SGSI	
TADI	TEC	
♦ TII	TIIB	
	TIIF	
2N3013	♦△FSC	92- 29
ESMF	FERB	177-102
♦ ITT	MISI	
♦ MOTA	NSC	
TADI	TEC	
♦ TII	TIIF	
JAN2N3013	FSC	92- 30
	TII	177-103
2N3014	♦△FSC	92- 31
♦ ITT	♦ MOTA	178- 4
TADI	♦ TII	
	TIIF	
2N3015	♦△FSC	102- 42
ETC	IDC	176- 7
♦ MOTA	SGSI	
TADI	TEC	
♦ TII	TIIF	
2N3016	♦△SOD	138- 67
2N3017	♦△SOD	138- 68
	SCA	
2N3018	♦△SOD	148- 77
2N3019	♦△RAYN	101- 59
♦ ETC	♦ FSC	
♦ MOTA	NSC	
SGSI	TADI	
TEC	♦ TRW	
JAN2N3019	RAYN	101- 60
	TEC	
2N3020	♦△RAYN	101- 40
♦ FSC	♦ MOTA	
NSC	SGSI	
TADI	TEC	
2N3021	♦△MOTA	127- 19
	TEC	170- 46
2N3022	♦△MOTA	127- 20
	TEC	170- 47
2N3023	♦△MOTA	127- 21
	TEC	170- 48
2N3024	♦△MOTA	127- 22
MULB	TEC	170- 49
2N3025	♦△MOTA	127- 23
	TEC	170- 50
2N3026	♦△MOTA	127- 24
MULB	TEC	170- 51
2N3033	♦△TII	181- 2
	NSC	
2N3034	♦△TII	181- 3
	NSC	
2N3035	♦△TII	181- 4
2N3036	♦△TII	100- 72
RAYN	SCA	170- 8
TADI	TEC	
TIIB	♦ TRW	
2N3037	♦△TII	90- 78
TADI	TIIB	170- 9
	TIIF	
2N3038	♦△TII	90- 79
TIIB	TIIF	170- 10
2N3039	♦△TII	66- 98
TADI	TIIB	169-106
	TIIF	
2N3040	♦△TII	66- 99
TADI	TIIB	169-107
	TIIF	
2N3043	♦△TII	182- 57
♦ FSC	♦ MOTA	
RAYN	TIIB	
	TIIF	
2N3044	♦△TII	182- 58
♦ FSC	♦ MOTA	
RAYN	TIIB	
	TIIF	
2N3045	♦△TII	182- 59
♦ FSC	♦ MOTA	

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TYPE No.	MFRS	Pg&Line
2N3045		
(cont.)	RAYN	
	TIIB	
	TIIF	
2N3046	♦△TII	182 - 60
♦FSC	♦MOTA	
RAYN	TIIB	
	TIIF	
2N3047	♦△TII	182 - 61
♦FSC	♦MOTA	
RAYN	TIIB	
	TIIF	
2N3048	♦△TII	182 - 62
♦FSC	♦MOTA	
RAYN	TIIB	
	TIIF	
2N3049	♦△TII	182 - 63
♦MOTA	RAYN	
	TIIB	
2N3050	♦△TII	182 - 64
♦MOTA	TIIB	
2N3051	♦△TII	182 - 65
	TIIB	
2N3052	♦△TII	182 - 66
♦FSC	♦GESY	
TIIB	TIIF	
2N3053	♦△RCA	134 - 13
♦CDC	CNS	
ESMF	♦ETC	
FERB	HUGS	
ITC	MINA	
MISI	♦MOTA	
MULB	NSC	
NTLB	PHIC	
TADI	TEC	
TII	TIIB	
	TIIF	
2N3054	♦△RCA	142 - 13
ASC	ESMF	
ITC	MISI	
MOTA	PIR	
♦SIL	SLA	
SPC	♦TEC	
TIIB	♦WESY	
2N3055	♦△RCA	150 - 58
ASC	ATEI	
CDLF	CNS	
ESMF	♦ETC	
FERB	HUGS	
IDC	INTG	
ITC	MISI	
♦MOTA	MULB	
NTLB	PHIC	
PPC	RADF	
SEN	♦SES	
♦SIL	♦SLA	
♦SOD	SPC	
SSI	♦WESY	
JAN2N3055	SOD	150 - 59
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♦FSC	TADI	
	TEC	
2N3056A	♦△RAYN	93 - 70
♦FSC	TADI	
	TEC	
2N3057	♦△RAYN	93 - 76
♦FSC	TADI	
	TEC	
2N3057A	♦△RAYN	93 - 77
♦FSC	TADI	
	TEC	
JAN2N3057A	none	93 - 78
2N3058	♦△CRY	68 - 67
♦RAYN	♦SPR	
TADI	TEC	
2N3059	♦CRY	68 - 68
♦RAYN	♦SPR	
TADI	TEC	
2N3060	♦△CRY	68 - 49
♦RAYN	SOD	
♦SPR	TADI	
	TEC	
2N3061	♦△CRY	68 - 59
♦RAYN	♦SPR	
TADI	TEC	
2N3062	♦△CRY	68 - 40
♦RAYN	TADI	
	TEC	
2N3063	♦△CRY	68 - 50
♦RAYN	TADI	
	TEC	
2N3064	♦△CRY	68 - 38
♦RAYN	TADI	
	TEC	
2N3065	♦△CRY	68 - 43
♦RAYN	TADI	
	TEC	
2N3066	♦△AML	108 - 87
BNT	♦DIC	
♦NPC	♦SIX	
2N3067	♦△AML	108 - 88
BNT	♦DIC	
♦NPC	♦SIX	
2N3068	♦△AML	108 - 89
BNT	♦DIC	
♦NPC	♦SIX	
2N3069	♦△AML	111 - 3
BNT	CDC	
♦DIC	♦SIX	
TADI	♦UCC	
2N3070	♦△AML	111 - 4
BNT	CDC	
♦DIC	♦SIX	
TADI	♦UCC	
2N3071	♦△AML	111 - 5
BNT	CDC	
♦DIC	♦SIX	
	♦UCC	
2N3072	♦△FSC	71 - 83
ETC	ITT	172 - 27
RAYN	SGSI	
TADI	TEC	
2N3073	♦△FSC	67 - 17
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RAYN	SGSI	
TADI	TEC	
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2N3075	PHIC	49 - 22
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2N3077	PHIC	90 - 86
SCA	♦TEC	
2N3078	PHIC	90 - 87
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2N3079	♦△DEL	155 - 47
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2N3083	♦△GESY	95 - 88
		189 - 3
2N3084	♦△CRY	111 - 89
BNT	DIC	
2N3085	♦△CRY	111 - 90
BNT	♦DIC	
2N3086	♦△CRY	111 - 91
BNT	DIC	
2N3087	♦△CRY	111 - 92
BNT	♦DIC	
2N3088	♦△CRY	111 - 93
BNT	DIC	
2N3088A	♦△CRY	111 - 94
BNT	DIC	
2N3089	♦△CRY	111 - 95
BNT	♦DIC	
	♦SIX	
2N3089A	♦△CRY	111 - 96
BNT	♦DIC	
	♦SIX	
2N3107	♦△FSC	101 - 33
ITT	RAYN	170 - 83
	SGSI	
2N3108	♦△FSC	100 - 96
ITT	MULB	170 - 61
NSC	RAYN	
SGSI	TADI	
	TEC	
2N3109	♦△FSC	101 - 34
ITT	NSC	170 - 84
RAYN	SGSI	
	TADI	
2N3110	♦△FSC	100 - 97
ITT	NSC	170 - 62
RAYN	SGSI	
TADI	TEC	
2N3112	♦△SIX	104-102
2N3113	♦△SIX	104 - 15
2N3114	♦△FSC	100 - 25
♦MOTA	SGSI	
TADI	TEC	
♦TII	TIIB	
	♦TRW	
2N3115	♦△MOTA	94 - 4
ETC	HSC	176 - 62
RAYN	TEC	
2N3116	♦△MOTA	94 - 5
ETC	HSC	176 - 63
RAYN	TEC	
2N3117	♦△FSC	90 - 88
♦AML	CDC	
♦ITT	NSC	
RAYN	SES	
SGSI	♦SOD	
TADI	♦TEC	
♦TII	TIIF	
2N3118	♦△RCA	133 - 25
	SSI	
2N3119	♦△RCA	133 - 26
SCA	SSI	
2N3120	♦△FSC	71 - 84
ETC	ITT	172 - 29
RAYN	SGSI	
TADI	TEC	
2N3121	♦△FSC	67 - 18
ETC	ITT	172 - 30
RAYN	SGSI	
TADI	TEC	
2N3122	△RAYN	100 - 98
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JAN2N3127	MOTA	47-105
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2N3129	♦△NSC	74 - 91
2N3130	♦△NSC	74 - 92
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♦GIC	HSC	175 - 7
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	♦DIC	♦SIX	
		♦UCC	
2N3438	♦△AML	108 - 98
	BNT	CDC	
	♦DIC	♦SIX	
		♦UCC	
2N3439	♦△RCA	130 - 99
	FERB	♦FSC	
	ITC	MOTA	
		SSI	
JAN2N3439	RCA	100 - 4
2N3440	♦△RCA	130 - 100
	FERB	♦FSC	
cont.next col.		
2N3440 (cont.)	ITC	
	MOTA	SSI	
JAN2N3440	RCA	100 - 5
2N3441	♦△RCA	142 - 19
	ASC	ESMF	
	FERB	♦FSC	
	MISI	PIR	
	♦SIL	SLA	
	SPC	TEC	
		WESY	
JAN2N3441	RCA	142 - 20
2N3442	♦△RCA	142 - 21
	ASC	ATEI	
	ESMF	FERB	
	MISI	PIR	
	RADF	♦SIL	
	SLA	SPC	
	SSI	♦WESY	
JAN2N3442	RCA	150 - 66
2N3444	♦△MOTA	130 - 101
	ESMF	♦FSC	172 - 60
	HSC	♦ITT	
	MISI	♦RAYN	
	SGSI	SSI	
	TADI	♦TII	
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2N3445	♦△MOTA	150 - 67
	SEN	SSI	166 - 20
		WESY	
2N3446	♦△MOTA	150 - 68
	SEN	SSI	166 - 21
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2N3447	♦△MOTA	150 - 69
	SEN	SSI	166 - 22
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2N3448	♦△MOTA	150 - 70
	SEN	SSI	166 - 23
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2N3452	♦△AML	108 - 99
	BNT	♦SIX	
2N3453	♦△AML	108 - 100
	BNT	♦SIX	
2N3454	♦△AML	108 - 101
	BNT	♦SIX	
2N3455	♦△AML	108 - 102
	BNT	♦SIX	
2N3456	♦△AML	108 - 103
	BNT	♦SIX	
2N3457	♦△AML	108 - 104
	BNT	♦SIX	
2N3458	♦△AML	108 - 105
	BNT	CDC	
	♦DIC	♦SIX	
	TII	♦UCC	
2N3459	♦△AML	108 - 106
	BNT	CDC	
	♦DIC	♦SIX	
	TII	♦UCC	
2N3460	♦△AML	108 - 107
	BNT	CDC	
	♦DIC	♦SIX	
	TII	♦UCC	
2N3461	△SOD	113 - 31
2N3464	SCA	71 - 51
		134 - 18
2N3465	△CRY	111 - 97
		DIC	
2N3466	△CRY	111 - 98
		DIC	
2N3467	♦△MOTA	125 - 26
	♦FSC	HSC	173 - 36
	♦RAYN	TADI	
		♦TII	
	ITT	SGSI	173 - 67
JAN2N3467	MOTA	125 - 15
	TII	179 - 89
2N3468	♦△MOTA	125 - 27
	♦FSC	HSC	172 - 49
	♦RAYN	TADI	
		♦TII	
JAN2N3468	MOTA	125 - 16
		179 - 90
2N3469	△SOD	131 - 83
	SSI	SSP	
		TEC	
2N3470	♦△WESY	156 - 72
	SEN	SIL	
		SPC	
2N3471	♦△WESY	156 - 73
	SEN	SIL	
		SPC	
2N3472	♦△WESY	156 - 74
	SEN	SIL	
		SPC	
2N3473	♦△WESY	156 - 75
	SEN	SIL	
		SPC	
2N3474	♦△WESY	156 - 76
	SEN	SIL	
		SPC	
2N3475	♦△WESY	156 - 77
	SEN	SIL	
		SPC	
2N3476	♦△WESY	156 - 78
	SEN	SIL	
		SPC	
2N3477	♦△WESY	156 - 79
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2N3477 (cont.)	SEN	
	SIL	SPC	
2N3478	♦△RCA	79 - 94
2N3479	SOIF	188 - 20
2N3480	SOIF	188 - 21
2N3481	△SOIF	188 - 22
2N3483	SOIF	188 - 23
2N3484	SOIF	188 - 24
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	♦FSC	RAYN	174 - 13
	♦TII	TIIF	
2N3485A	♦△MOTA	69 - 76
	♦FSC	RAYN	174 - 14
	♦TII	TIIF	
JAN2N3485A	MOTA	69 - 77
		174 - 69
2N3486	♦△MOTA	125 - 77
	♦FSC	RAYN	174 - 15
	♦TII	TIIF	
2N3486A	♦△MOTA	69 - 78
	♦FSC	RAYN	174 - 16
	♦TII	TIIF	
JAN2N3486A	MOTA	69 - 79
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2N3487	♦△MOTA	150 - 71
	SEN	SSP	166 - 24
		TEC	
2N3488	♦△MOTA	150 - 72
	SEN	SSP	166 - 25
		TEC	
2N3489	♦△MOTA	150 - 73
	SEN	SSP	166 - 26
		TEC	
2N3490	♦△MOTA	150 - 74
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2N3491	♦△MOTA	150 - 75
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	SEN	SSP	166 - 29
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2N3494	♦△MOTA	71 - 8
	♦RAYN	SCA	175 - 21
	TEC	♦TII	
2N3495	♦△MOTA	70 - 105
	SCA	TEC	173 - 19
		♦TII	
2N3496	♦△MOTA	69 - 80
	ETC	SCA	175 - 22
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2N3497	♦△MOTA	69 - 61
	SCA	TEC	173 - 20
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2N3498	♦△MOTA	130 - 102
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JAN2N3498	MOTA	134 - 19
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	TEC	♦TRW	
JAN2N3499	MOTA	134 - 20
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2N3500	♦△MOTA	130 - 104
		TEC	
JAN2N3500	MOTA	134 - 21
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JAN2N3501	MOTA	134 - 22
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2N3502	♦△FSC	71 - 25
	AML	ITT	173 - 98
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	RAYN	SGSI	
	SSI	TADI	
	TEC	♦TII	
	TIIF	UEHK	
2N3503	♦△FSC	71 - 26
	ITT	MOTA	173 - 99
	♦NSC	RAYN	
	SGSI	SSI	
	TADI	TEC	
	♦TII	TIIF	
		UEHK	
2N3504	♦△FSC	69 - 81
	ITT	MOTA	173 - 100
	♦NSC	RAYN	
	SGSI	SSI	
	TADI	TEC	
	♦TII	TIIF	
		UEHK	
2N3505	♦△FSC	69 - 82
	ITT	MOTA	173 - 101
	♦NSC	RAYN	
	SGSI	SSI	
	TADI	TEC	
	♦TII	TIIF	
		UEHK	
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	HSC	SOD	170 - 38
	SSI	TEC	
JAN2N3506	MOTA	134 - 23
		175 - 29
2N3507	♦△MOTA	130 - 107
	HSC	SOD	170 - 39
	SSI	TEC	
JAN2N3507	MOTA	134 - 24
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2N3511	♦△MOTA	92 - 75
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♦FSC	♦MOTA	
2N3516	♦△GESY	182 - 84
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2N3547	♦△NSC	68-103
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2N3551	♦△TII	150 - 26
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SEN	SSI	169 - 23
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INTG	♦ITT	
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STCB	TADI	
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ETC	♦GIC	
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RAYN	SGSI	
TEC	UEHK	
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TEC	UEHK	
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♦GIC	NPC	
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BNT	♦CDC	
GIC	NPC	
NSC	♦PHIL	
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2N3569	♦△FSC	84 - 95
BNT	♦CDC	
NSC	RAYN	
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2N3570	♦△TII	80 - 84
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MISI	MULB	
PHIC	RADF	
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2N3571	♦△TII	80 - 54
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MISI	MULB	
PHIC	RADF	
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2N3572	♦△TII	80 - 7
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MISI	MULB	
PHIC	RADF	
SSI	TIIB	
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2N3580	♦△SOD	69 - 21
SCA	TEC	
2N3581	♦△SOD	68 - 10
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2N3582	♦△SOD	68 - 11
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2N3583	♦△RCA	143 - 60
FERB	ITC	
	TEC	
2N3584	♦△RCA	143 - 61
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SSP	TEC	
JAN2N3584	none	143 - 62
		166 - 93
2N3585	♦△RCA	143 - 63
FERB	ITC	166 - 47
SSP	TEC	
JAN2N3585	none	143 - 64
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2N3588	♦△APX	47 - 86
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2N3589	♦△GESY	138 - 71
SSI	TEC	
2N3590	♦△GESY	138 - 72
	TEC	
2N3591	TEC	138 - 73
2N3592	SSI	138 - 74
	TEC	
2N3593	TEC	135 - 55
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SEN	SSP	
	TEC	
2N3598	♦△SOD	153 - 69
♦FSC	♦PIR	167 - 96
SEN	SSP	
	TEC	
2N3599	♦△SOD	153 - 70
♦FSC	♦PIR	167 - 97
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2N3605A	♦△GESY	89 - 73
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2N3609	△PHIL	105 - 81
		189 - 15
2N3610	♦△PHIL	104 - 19
2N3611	♦△MOTA	118 - 99
♦ETC	SOD	
2N3612	♦△MOTA	118-100
♦ETC	SOD	
2N3613	♦△MOTA	118-101
♦ETC	SOD	
2N3614	♦△MOTA	118-102
♦ETC	SOD	
2N3615	♦△MOTA	118-103
♦ETC	SOD	
2N3616	♦△MOTA	118-104
♦ETC	IDC	
	SOD	
2N3617	♦△MOTA	118-105
♦ETC	SOD	
2N3618	♦△MOTA	118-106
♦ETC	SOD	
2N3619	♦△SOD	136 - 98
2N3620	♦△SOD	136 - 99
2N3621	♦△SOD	143 - 65
	SEN	
2N3622	♦△SOD	143 - 66
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2N3623	♦△SOD	136-100
	SEN	
2N3624	♦△SOD	136-101
	SEN	
2N3625	♦△SOD	143 - 67
	SEN	
2N3626	♦△SOD	143 - 68
	SEN	
2N3627	♦△SOD	136-102
	SEN	
2N3628	♦△SOD	136-103
	SEN	
2N3629	♦△SOD	143 - 69
	SEN	
2N3630	♦△SOD	143 - 70
	SEN	
2N3631	♦△SIX	108-108
2N3632	♦△RCA	141 - 53
♦ECD	FERB	
INTG	♦ITT	

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TYPE No.	MFRS	Pg&Line
2N3632		
(cont.)	♦MOTA	
MULB	PHIC	
RADF	RAYN	
SOD	♦SSS	
STCB	TADI	
TFKG	♦TII	
TIIB	VALG	
2N3633	♦△TEC	88 - 43
	ECD	180 - 89
2N3633/TNT	TEC	73 - 20
2N3634	♦△MOTA	125-106
SCA	TEC	173 - 21
JAN2N3634	MOTA	125 - 17
		180 - 58
2N3635	♦△MOTA	125-107
	TEC	175 - 23
JAN2N3635	MOTA	125 - 18
		180 - 71
2N3636	♦△MOTA	125-108
SCA	TEC	173 - 22
JAN2N3636	MOTA	125 - 19
		180 - 59
2N3637	♦△MOTA	125-109
	TEC	175 - 24
JAN2N3637	MOTA	125 - 20
		180 - 72
2N3638	♦△FSC	64 - 20
BNT	♦CDC	171 - 61
GIC	NSC	
♦PHIL	RAYN	
SGSI	UEHK	
2N3638A	♦△FSC	64 - 43
BNT	♦CDC	172-100
GIC	IDC	
NSC	♦PHIL	
RAYN	UEHK	
2N3639	♦△FSC	61 - 98
BNT	RAYN	179 - 84
2N3640	♦△FSC	61 - 99
BNT	RAYN	179 - 85
	UEHK	
2N3641	♦△FSC	90 - 15
BNT	♦CDC	
NSC	PHIL	
SGSI	UEHK	
2N3642	♦△FSC	90 - 16
BNT	♦CDC	
NSC	PHIL	
SGSI	UEHK	
2N3643	♦△FSC	90 - 17
BNT	♦CDC	
NSC	PHIL	
SGSI	UEHK	
2N3644	♦△FSC	64 - 85
BNT	CDC	173-102
IDC	NSC	
RAYN	SGSI	
	UEHK	
2N3645	♦△FSC	64 - 86
BNT	♦CDC	173-103
NSC	RAYN	
SGSI	UEHK	
2N3646	♦△FSC	79 - 20
♦CDC	ETC	177-104
	IDC	
2N3647	♦△MOTA	94 - 16
	♦FSC	177 - 98
2N3648	♦△MOTA	94 - 20
	♦FSC	179 - 22
2N3659	♦△TRW	133 - 42
SSI	TEC	
2N3660	♦△TEC	126 - 68
	SSI	
2N3661	♦△TEC	126 - 69
	SSI	
2N3662	♦△GESY	79 - 90
	ESMF	
2N3663	♦△GESY	79 - 91
	ESMF	
2N3665	♦△TEC	134 - 25
♦FSC	ITC	
ITT	NSC	
SGSI	SSI	
2N3666	♦△TEC	134 - 26
♦FSC	ITC	
ITT	NSC	
SGSI	SSI	
2N3667	♦△SIL	152 - 58
PPC	SOD	163-109
SPC	SSI	
2N3671	△RAYN	71 - 9
♦FSC	ITT	174 - 17
MOTA	SGSI	
2N3672	△RAYN	69 - 83
ETC	♦FSC	174 - 18
ITT	MOTA	
	SGSI	
2N3673	△RAYN	66 - 64
♦FSC	MOTA	174 - 19
2N3675	△SIL	136-104
SSI	TEC	164 - 39
2N3676	△SIL	136-105
	SSI	164 - 40
2N3677	♦△CRY	68 - 53
MOTA	♦TEC	189 - 16
2N3678	△TRW	102 - 47
♦FSC	ITT	175 - 63
SGSI	SSI	
2N3680	♦△TII	84 - 96
♦AML	NSC	182 - 90
TADI	TEC	
TIIB	TIIF	

TYPE No.	MFRS	Pg&Line
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2N3683	♦△KMC	80 - 9
2N3684	♦△UCC	111 - 6
♦CDC	♦DIC	
♦NPC	♦SIX	
	TADI	
2N3684A	△UCC	111 - 7
2N3685	♦△UCC	107 - 37
BNT	♦CDC	
♦DIC	♦NPC	
♦SIX	TADI	
2N3686A	△UCC	107 - 9
2N3687	♦△UCC	107 - 6
BNT	♦CDC	
♦DIC	♦NPC	
♦SIX	TADI	
2N3687A	△UCC	107 - 7
2N3688	♦△FSC	79 - 30
IDC	NPC	
	SGSI	
2N3689	♦△FSC	79 - 31
	SGSI	
2N3690	♦△FSC	79 - 32
	SGSI	
2N3691	♦△FSC	78 - 59
BNT	♦CDC	
ETC	♦GIC	
NSC	♦PHIL	
	UEHK	
2N3692	♦△FSC	78 - 60
BNT	♦CDC	
ETC	♦GIC	
NSC	♦PHIL	
	UEHK	
2N3693	♦△FSC	78 - 61
BNT	♦CDC	
ETC	NPC	
NSC	♦PHIL	
SGSI	UEHK	
2N3694	♦△FSC	78 - 62
BNT	♦CDC	
ETC	IDC	
NPC	NSC	
PHIL	SGSI	
	UEHK	
2N3695	AML	104 - 31
	BNT	
2N3696	AML	104 - 14
	BNT	
2N3697	AML	104 - 6
	BNT	
2N3698	AML	104 - 3
	BNT	
2N3700	♦△RAYN	95 - 89
♦FSC	SGSI	
TADI	TEC	
	♦TRW	
JAN2N3700	RAYN	95 - 90
2N3701	♦△RAYN	95 - 66
♦FSC	SGSI	
TADI	TEC	
2N3702	♦△TII	67 - 3
♦SES	TADI	
	TIIB	
2N3703	♦△TII	67 - 4
♦SES	TIIB	
2N3704	♦△TII	90-100
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2N3705	♦△TII	90-101
	TIIB	
2N3706	♦△TII	90-102
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2N3707	♦△TII	90 - 50
NPC	♦SES	
	TIIB	
2N3708	♦△TII	90 - 51
IDC	NPC	
♦SES	TIIB	
2N3709	♦△TII	90 - 52
NPC	♦SES	
	TIIB	
2N3710	♦△TII	90 - 53
NPC	♦SES	
	TIIB	
2N3711	♦△TII	90 - 54
NPC	♦SES	
	TIIB	
2N3712	♦△TII	100 - 26
♦MOTA	SCA	
TEC	TIIB	
2N3713	♦△MOTA	15 ,06
DEL	♦ETC	165 - 25
IDC	SCA	
SLA	SPC	
SSI	TEC	
	♦TII	
JAN2N3713	none	152-107
		167 - 58
2N3714	♦△MOTA	152-108
DEL	♦ETC	165 - 26
SCA	SLA	
SPC	SSI	
TEC	♦TII	
JAN2N3714	none	152-109
		167 - 59
2N3715	♦△MOTA	152-110
DEL	♦ETC	165 - 27

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TYPE No.	MFRS	Pg&Line
2N3715		
(cont.)	SCA	
SLA	SPC	
SSI	TEC	
	♦TII	
JAN2N3715	none	153 - 1
		167 - 60
2N3716	♦△MOTA	153 - 2
DEL	♦ETC	165 - 28
SCA	SLA	
SPC	SSI	
TEC	♦TII	
JAN2N3716	none	153 - 3
		167 - 61
2N3719	♦△MOTA	126 - 14
	TEC	170 - 52
2N3720	♦△MOTA	126 - 15
	TEC	170 - 53
2N3721	♦GESY	76-103
	♦SPR	
2N3722	♦△FSC	102 - 59
MOTA	RAYN	177 - 51
	SGSI	
2N3723	♦△FSC	102 - 60
MOTA	SGSI	177 - 58
2N3724	♦△FSC	102 - 61
INTG	♦ITT	176-109
RAYN	SGSI	
SSI	STCB	
TEC	♦TII	
	TIIF	
2N3724A	♦△TII	130-108
RAYN	SSI	176-110
	TIIF	
2N3725	♦△FSC	102 - 62
AML	INTG	177 - 1
♦ITT	RAYN	
SGSI	SSI	
STCB	TEC	
♦TII	TIIF	
2N3725A	♦△TII	130-109
RAYN	SSI	177 - 2
	TIIF	
2N3726	♦△FSC	69 - 10
BNT	NSC	182 - 91
RAYN	SGSI	
	TADI	
2N3727	♦△FSC	69 - 11
BNT	NSC	182 - 92
RAYN	SGSI	
	TADI	
2N3728	♦△FSC	94 - 59
GIC	RAYN	182 - 93
SGSI	SSI	
2N3729	♦△FSC	94 - 60
GIC	RAYN	182 - 94
SGSI	SSI	
2N3730	ATEI	115 - 14
	♦RCA	
2N3731	♦△RCA	113-105
	ATEI	
2N3732	♦△RCA	113 - 62
	ATEI	
2N3733	♦△RCA	141 - 54
♦ECD	FERB	
INTG	♦ITT	
♦MOTA	RADF	
RAYN	♦SSS	
TADI	TIIB	
2N3734	♦△MOTA	133 - 27
♦FSC	HSC	177 - 25
ITT	RAYN	
	SGSI	
2N3735	♦△MOTA	133 - 28
HSC	RAYN	176 - 8
JAN2N3735	none	130-110
		180 - 23
2N3736	♦△MOTA	96 - 73
♦FSC	ITT	177 - 26
2N3737	♦△MOTA	96 - 50
	IDC	176 - 9
JAN2N3737	none	96 - 51
		180 - 24
2N3738	♦△MOTA	141 - 68
♦FSC	ITC	
2N3739	♦△MOTA	141 - 69
♦FSC	ITC	
JAN2N3739	none	141 - 70
2N3740	♦△MOTA	127 - 9
	TEC	
2N3740A	♦△MOTA	127 - 10
2N3741	♦△MOTA	127 - 11
	TEC	
2N3741A	♦△MOTA	127 - 12
2N3742	♦△MOTA	134 - 27
ITC	MST	
SCA	SSI	
JAN2N3742	none	134 - 28
2N3743	♦△MOTA	125-110
ITC	SCA	
JAN2N3743	none	134 - 29
2N3744	△SOD	146 - 22
♦PIR	SEN	168 - 23
SSP	TEC	
2N3745	△SOD	146 - 23
♦PIR	SEN	168 - 24
SSP	TEC	
2N3746	△SOD	146 - 24
♦PIR	SEN	168 - 25
SSP	TEC	
2N3747	△SOD	146 - 25
♦PIR	SEN	168-106
SSP	TEC	

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TYPE No.	MFRS	Pg&Line
2N3748	△SOD	146- 26
♦PIR	SEN	168-107
SSP	TEC	
2N3749	△SOD	146- 27
♦PIR	SEN	168-108
SSP	TEC	
JAN2N3749	SOD	145-105
		167- 49
2N3750	△SOD	146- 28
♦PIR	SEN	169-101
SSP	TEC	
2N3751	△SOD	146- 29
♦PIR	SEN	169-102
SSP	TEC	
2N3752	△SOD	146- 30
♦PIR	SEN	169-103
SSP	TEC	
2N3762	♦△MOTA	125-101
HSC	SCA	173- 50
2N3763	♦△MOTA	125-102
HSC	SCA	172- 62
JAN2N3763	none	125- 38
		180- 19
2N3764	♦△MOTA	70- 48
	HSC	173- 51
2N3765	♦△MOTA	70- 41
	HSC	172- 63
JAN2N3765	none	70- 42
		180- 20
2N3766	♦△MOTA	141- 71
	TEC	
2N3767	♦△MOTA	141- 72
	TEC	
2N3771	♦△RCA	153- 4
ASC	ESMF	
♦FSC	MISI	
♦MOTA	PIR	
PPC	♦SIL	
SLA	♦SOD	
♦SPC	SSI	
	♦WESY	
JAN2N3771	none	153- 51
		164-106
2N3772	♦△RCA	153- 5
ASC	ESMF	
ETC	♦FSC	
MISI	♦MOTA	
PIR	PPC	
♦SIL	SLA	
♦SOD	♦SPC	
SSI	♦WESY	
JAN2N3772	none	153- 52
		164-105
2N3773	♦△RCA	153- 6
ASC	ESMF	
♦FSC	MISI	
PIR	♦SIL	
SLA	♦SOD	
♦SPC	♦WESY	
2N3774	♦△SIL	128-107
	♦CRY	164- 29
2N3775	♦△SIL	128-108
	♦CRY	164- 30
2N3776	♦△SIL	128-109
	♦CRY	164- 31
2N3777	♦△SIL	128-110
	♦CRY	164- 32
2N3778	♦△SIL	129- 1
	♦CRY	164- 33
2N3779	♦△SIL	129- 2
	♦CRY	164- 34
2N3780	♦△SIL	129- 3
	♦CRY	164- 35
2N3781	♦△SIL	129- 4
	♦CRY	164- 36
2N3782	△SIL	129- 5
	♦CRY	164- 37
2N3783	♦△MOTA	52- 6
2N3784	♦△MOTA	52- 4
2N3785	♦△MOTA	52- 5
2N3788	SOD	150- 77
2N3789	♦△MOTA	128- 78
TEC	♦TII	
JAN2N3789	none	128- 79
		167- 62
2N3790	♦△MOTA	128- 80
TEC	♦TII	
JAN2N3790	none	128- 81
		167- 63
2N3791	♦△MOTA	128- 82
TEC	♦TII	
JAN2N3791	none	118- 97
		128- 83
		167- 64
2N3792	♦△MOTA	128- 84
TEC	♦TII	
JAN2N3792	none	118- 98
		128- 85
		167- 65
2N3793	♦△NSC	82- 39
2N3794	♦△NSC	82- 40
2N3795	△SIL	126- 28
		163- 95
2N3796	♦△MOTA	107- 68
2N3797	♦△MOTA	107- 69
2N3798	♦△MOTA	67- 97
SCA	♦TII	
	UEHK	
2N3799	♦△MOTA	67- 98
SCA	TADI	
♦TII	UEHK	
2N3800	♦△MOTA	63- 3
♦AML	BNT	190- 47
RAYN	TADI	

TYPE No.	MFRS	Pg&Line
2N3801	♦△MOTA	63- 4
♦AML	RAYN	190- 48
	TADI	
2N3802	♦△MOTA	63- 5
♦AML	BNT	182- 95
RAYN	TADI	
2N3803	♦△MOTA	63- 6
♦AML	BNT	182- 96
RAYN	TADI	
2N3804	♦△MOTA	63- 7
♦AML	BNT	182- 97
RAYN	TADI	
2N3804A	♦△MOTA	63- 8
RAYN	TADI	182- 98
2N3805	♦△MOTA	63- 9
♦AML	BNT	182- 99
RAYN	TADI	
2N3805A	♦△MOTA	63- 10
RAYN	TADI	182-100
2N3806	♦△MOTA	70- 18
♦AML	BNT	190- 49
NSC	RAYN	
TADI	♦TII	
	TIIF	
2N3807	♦△MOTA	70- 19
♦AML	BNT	190- 50
NSC	RAYN	
TADI	♦TII	
	TIIF	
2N3808	♦△MOTA	70- 20
♦AML	BNT	182-101
NSC	RAYN	
TADI	♦TII	
	TIIF	
2N3809	♦△MOTA	70- 21
♦AML	BNT	182-102
NSC	RAYN	
TADI	♦TII	
	TIIF	
2N3810	♦△MOTA	70- 22
♦AML	BNT	182-103
NSC	RAYN	
TADI	♦TII	
TIIB	TIIF	
JAN2N3810	MOTA	182-104
	TII	
2N3810A	♦△MOTA	70- 23
NSC	RAYN	182-105
	TADI	
2N3811	♦△MOTA	70- 24
♦AML	BNT	182-106
NSC	RAYN	
TADI	♦TII	
TIIB	TIIF	
JAN2N3811	MOTA	182-107
2N3811A	♦△MOTA	70- 25
NSC	RAYN	182-108
	TADI	
2N3812	△MOTA	62- 95
	RAYN	190- 51
2N3813	△MOTA	62- 96
	RAYN	190- 52
2N3814	△MOTA	62- 97
	RAYN	182-109
2N3815	△MOTA	62- 98
	RAYN	182-110
2N3816	△MOTA	62- 99
	RAYN	183- 1
2N3816A	♦△MOTA	63- 11
	RAYN	183- 2
2N3817	△MOTA	62-100
	RAYN	183- 3
2N3817A	♦△MOTA	63- 12
	RAYN	183- 4
2N3818	♦△MOTA	142-108
	SEN	
2N3819	♦△TII	111- 16
SLCB	TIIB	
2N3820	♦△TII	105- 99
	TIIB	
2N3821	♦△TII	108-109
BNT	♦CDC	
CRY	♦DIC	
♦MOTA	♦SIX	
TADI	TIIB	
TIIF	♦UCC	
JAN2N3821	AML	108-110
2N3822	♦△TII	109- 1
BNT	CRY	
♦DIC	♦MOTA	
♦SIX	TADI	
TIIB	TIIF	
	♦UCC	
JAN2N3822	AML	109- 2
2N3823	♦△TII	109- 3
AKER	♦AML	
♦APX	BNT	
♦CDC	CRY	
♦DIC	ESMF	
MISI	♦MOTA	
MULB	♦SIX	
TADI	TIIB	
TIIF	♦UCC	
JAN2N3823	AML	109- 4
	TII	
2N3824	♦△TII	109- 5
AML	BNT	
♦CDC	CRY	
♦DIC	♦MOTA	
♦SIX	TIIB	
TIIF	♦UCC	
2N3825	TIIB	82- 47
2N3826	♦△TII	91- 15
	TIIB	

TYPE No.	MFRS	Pg&Line
2N3827	♦△TII	91- 16
	TIIB	
2N3828	TIIB	87- 64
2N3829	♦△TII	67- 87
	SCA	177-105
2N3830	♦△TII	138- 12
RAYN	TIIB	174- 76
	TIIF	
2N3831	♦△TII	138- 13
RAYN	TIIB	174- 77
	TIIF	
2N3832	♦△TII	103- 45
	ETC	180- 49
2N3833	♦△TII	103- 29
	TIIB	
2N3834	♦△TII	103- 30
	TIIB	
2N3835	♦△TII	103- 31
	TIIB	
2N3836	TIIB	190- 53
2N3837	TIIB	190- 54
2N3838	♦△TII	174- 20
♦MOTA	RAYN	181- 42
TIIB	TIIF	
2N3839	♦△RCA	81- 6
♦MOTA	SCA	
2N3840	♦△SPR	68- 58
♦CRY	♦MOTA	189- 17
	TADI	
2N3841	TADI	63- 80
		189- 18
2N3842	TADI	63- 75
		189- 19
2N3843	△GESY	77- 88
	♦SPR	
2N3843A	△GESY	77- 89
	♦SPR	
2N3844	♦△GESY	77-108
	♦SPR	
2N3844A	♦△GESY	77-109
	♦SPR	
2N3845	♦△GESY	78- 14
	♦SPR	
2N3845A	♦△GESY	78- 15
	♦SPR	
2N3846	♦△TII	156- 80
ITC	SEN	166- 52
	TIIB	
JAN2N3846	none	156- 81
		168- 87
2N3847	♦△TII	156- 82
ITC	SEN	166- 53
JAN2N3847	none	156- 83
		168- 88
2N3848	ITC	156- 84
SEN	TIIB	166- 54
2N3849	ITC	156- 85
	SEN	166- 55
2N3850	♦△SSP	135- 57
SEN	SOD	167- 29
SSI	TEC	
2N3851	♦△SSP	135- 58
SEN	SOD	167- 30
SSI	TEC	
2N3852	♦△SSP	135- 59
SEN	SOD	167- 31
SSI	TEC	
2N3853	♦△SSP	135- 60
SOD	SSI	167- 32
	TEC	
2N3854	♦△GESY	78- 6
	♦SPR	
2N3854A	♦△GESY	78- 7
	♦SPR	
2N3855	♦△GESY	78- 17
	♦SPR	
2N3855A	♦△GESY	78- 18
	♦SPR	
2N3856	♦△GESY	78- 26
	♦SPR	
2N3856A	♦△GESY	78- 27
	♦SPR	
2N3858	♦△GESY	78- 21
	♦SPR	
2N3858A	♦△GESY	77-110
	♦SPR	
2N3859	♦△GESY	78- 22
	♦SPR	
2N3859A	♦△GESY	78- 1
	♦SPR	
2N3860	♦△GESY	78- 23
	♦SPR	
2N3861	△ITC	138- 75
MST	SSI	
2N3862	△TEC	92-106
	SSI	180- 21
2N3863	♦△SIL	152- 52
SOD	SPC	163-110
	SSI	
2N3864	♦△SIL	150- 78
PPC	SOD	164- 1
SPC	SSI	
2N3865	△SIL	150- 79
SPC	SSI	164- 2
2N3866	♦△RCA	134- 30
APX	♦ECD	
FERB	♦FSC	
IDC	INTG	
♦ITT	♦MOTA	
MULB	PHIC	
RADF	♦SSS	
STCB	TADI	
TFKG	♦TII	
TIIB	UEHK	

TYPE No.	MFRS	Pg&Line
JAN2N3866	none	134- 31
2N3867	TEC	126- 16
		160- 75
JAN2N3867	none	126- 44
		175- 32
2N3868	TEC	126- 17
		160- 76
JAN2N3868	none	126- 45
		175- 33
2N3869	△NECJ	132- 49
2N3876	♦△TRW	153- 71
2N3877	♦△GESY	76-104
	♦SPR	
2N3877A	♦△GESY	76-105
	♦SPR	
2N3878	♦△RCA	143- 71
ITC	SCA	
SSP	TEC	
	WESY	
2N3879	♦△RCA	143- 72
ITC	SCA	169- 26
SSP	TEC	
	WESY	
2N3880	♦△KMC	80- 55
2N3881	△RAYN	98- 9
2N3883	♦△MOTA	55- 81
		171- 38
2N3900	♦△GESY	76-106
	♦SPR	
2N3900A	♦△GESY	76-107
	♦SPR	
2N3901	♦△GESY	76-108
	SPR	
2N3902	♦△DEL	154- 91
	♦SOD	163- 44
JAN2N3902	DEL	154- 92
		164- 70
2N3903	♦△MOTA	89- 23
	UEHK	175- 95
2N3904	♦△MOTA	89- 32
	UEHK	177- 12
2N3905	♦△MOTA	66- 2
TEC	UEHK	173-104
2N3906	♦△MOTA	66- 7
TEC	UEHK	175- 96
2N3907	♦△TEC	84- 97
NSC	TADI	183- 5
2N3908	♦△TEC	84- 98
NSC	TADI	183- 6
2N3909	♦△TII	105- 8
AML	♦SIX	
TADI	TIIB	
TIIF	♦UCC	
2N3909A	♦△TII	105- 9
2N3910	♦△RAYN	70- 10
♦CRY	MOTA	189- 20
TADI	TEC	
2N3911	♦△RAYN	70- 12
♦CRY	MOTA	189- 21
TADI	TEC	
2N3912	♦△RAYN	70- 13
♦CRY	MOTA	189- 22
TADI	TEC	
2N3913	♦△RAYN	68- 44
♦CRY	TADI	189- 23
	TEC	
2N3914	♦△RAYN	68- 60
♦CRY	TADI	189- 24
	TEC	
2N3915	♦△RAYN	68- 73
♦CRY	TADI	189- 25
	TEC	
2N3916	♦△FSC	135- 61
	SSI	
2N3917	♦△FSC	132- 64
ETC	SSI	
2N3918	SSI	132- 65
2N3919	♦△FSC	143- 73
ETC	SSI	180- 60
2N3920	♦△FSC	143- 74
ETC	SSI	180- 61
2N3921	♦△AML	108- 21
BNT	♦SIX	183- 7
	♦UCC	
2N3922	♦△AML	108- 22
BNT	♦SIX	183- 8
	♦UCC	
2N3923	♦△FSC	100- 27
ITC	SGSI	
	TEC	
2N3924	♦△MOTA	135- 62
MULB	PHIC	
RADF	TEC	
TIIB	VALG	
2N3925	♦△MOTA	138- 9
2N3926	♦△MOTA	138- 76
MULB	PHIC	
RADF	TIIB	
	VALG	
2N3927	♦△MOTA	141- 48
MULB	PHIC	
RADF	TIIB	
	VALG	
2N3930	♦FSC	68- 93
	SGSI	
2N3931	♦FSC	71- 16
	SGSI	
2N3932	♦△RCA	79- 95
2N3933	♦△RCA	79- 96
2N3934	♦△AML	108- 23
	BNT	183- 9
2N3935	♦△AML	108- 24
	BNT	183- 10

TYPE No.	MFRS	Pg&Line
2N3945	♦△TEC	134- 32
NSC	SSI	
2N3946	♦△MOTA	91- 58
		176- 70
2N3947	♦△MOTA	91-108
		177- 75
2N3948	♦△MOTA	134- 33
SCA	TRW	
2N3950	♦△MOTA	147- 94
2N3953	♦△KMC	80- 58
	ETC	
2N3954	♦△UCC	108- 25
BNT	♦DIC	183- 11
2N3954A	♦△UCC	108- 26
	BNT	183- 12
2N3955	♦△UCC	108- 27
BNT	♦DIC	183- 13
2N3955A	♦△UCC	108- 28
	BNT	183- 14
2N3956	♦△UCC	108- 29
BNT	♦DIC	183- 15
2N3957	♦△UCC	108- 30
BNT	♦DIC	183- 16
2N3958	♦△UCC	108- 31
BNT	♦DIC	183- 17
2N3959	♦△MOTA	94- 36
HSC	SSI	180- 87
JAN2N3959	none	94- 31
2N3960	♦△MOTA	94- 43
HSC	SSI	180- 90
JAN2N3960	MOTA	94- 37
2N3961	♦△MOTA	138- 14
	SSI	
2N3962	♦△FSC	66- 91
INTG	ITT	
NSC	SGSI	
STCB	♦TII	
2N3963	♦△FSC	66- 92
INTG	ITT	
NSC	SGSI	
	♦TII	
2N3964	♦△FSC	66-100
INTG	ITT	
NSC	SGSI	
STCB	♦TII	
2N3965	♦△FSC	66-101
ITT	NSC	
SGSI	TADI	
	♦TII	
2N3966	♦△AML	109- 6
BNT	CDC	160-107
ESMF	MISI	
	♦UCC	
2N3967	♦△AML	109- 7
BNT	CDC	
	UCC	
2N3967A	♦△AML	109- 8
BNT	CDC	
2N3968	♦△AML	109- 9
BNT	CDC	
	UCC	
2N3968A	♦△AML	109- 10
BNT	CDC	
2N3969	♦AML	109- 11
BNT	CDC	
	UCC	
2N3969A	♦△AML	109- 12
BNT	CDC	
2N3970	♦△UCC	112- 51
♦AML	APX	159-110
BNT	CDC	
♦SIX	TADI	
TII	TIIF	
2N3971	♦△UCC	112- 52
♦AML	APX	160- 13
BNT	CDC	
♦SIX	♦TII	
	TIIF	
2N3972	♦△UCC	112- 53
♦AML	APX	160- 54
BNT	CDC	
♦SIX	TADI	
♦TII	TIIF	
2N3973	♦△GESY	91- 17
	SPR	174- 85
2N3974	♦△GESY	91- 18
	SPR	174- 86
2N3975	♦△GESY	91- 19
	♦SPR	174- 87
2N3976	♦△GESY	91- 20
	♦SPR	174- 88
2N3977	♦△SPR	68- 25
MOTA	TADI	189- 26
2N3978	♦△SPR	68- 26
CRY	MOTA	189- 27
	TADI	
2N3979	♦△SPR	68- 27
CRY	MOTA	189- 28
	TADI	
2N3980	♦△TII	188- 25
♦MOTA	TADI	
	TIIB	
2N3993	♦△TII	105- 10
TIIB	TIIF	
2N3993A	♦△TII	105- 11
2N3994	♦△TII	105- 12
TIIB	TIIF	
2N3994A	♦△TII	105- 13
2N3996	♦△TII	145-106
PIR	SEN	169- 57
SOD	SSP	
TEC	TIIB	
JAN2N3996	none	146- 31
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2N3997	♦△TII	145-107
	PIR	SEN 169- 58
	SOD	SSP
	TEC	TIIB
JAN2N3997	none	146- 32
		172- 21
2N3998	♦△TII	145-108
	PIR	SEN 169- 59
	SOD	SSP
	TEC	TIIB
JAN2N3998	none	146- 33
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2N3999	♦△TII	145-109
	PIR	SEN 169- 60
	SOD	SSP
	TEC	TIIB
JAN2N3999	none	146- 34
		172- 23
2N4000	♦△TII	142- 72
	SCA	SOD 169- 24
	SSI	SSP
	TEC	TIIB
		TIIF
2N4001	♦△TII	142- 73
	SCA	SOD 169- 25
	SSI	SSP
	TEC	TIIB
		TIIF
2N4002	♦△TII	153- 72
	♦FSC	SEN 168- 82
	SOD	SSI
	SSP	TEC
		TIIB
2N4003	♦△TII	153- 73
	♦FSC	SEN 168- 83
	SOD	SSI
	SSP	TEC
		TIIB
2N4004	♦△TII	147- 95
	SEN	SSI 168- 84
2N4005	♦△TII	147- 96
	SEN	SSI 168- 85
2N4006	♦△CRY	68- 86
	♦MOTA	TADI 167- 11
		♦TEC
2N4007	♦△CRY	68- 74
	♦MOTA	TADI 166- 77
		♦TEC
2N4008	♦△CRY	68- 75
	♦MOTA	TADI 166- 78
		♦TEC
2N4009	♦△CRY	183- 18
	♦MOTA	TADI
2N4010	♦△CRY	183- 19
		♦MOTA
2N4011	♦△CRY	183- 20
		♦MOTA
2N4012	♦△RCA	138- 77
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	INTG	♦ITT
	♦MOTA	SSS
2N4013	♦FSC	91-109
	♦ITT	SGSI 177- 3
	STCB	TEC
		TIIF
2N4014	♦FSC	91-110
	♦ITT	SGSI 177- 4
	STCB	TEC
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2N4015	♦△FSC	69- 84
	AML	BNT 183- 21
	NSC	SGSI
		TADI
2N4016	♦△FSC	69- 85
	AML	BNT 183- 22
	NSC	SGSI
		TADI
2N4017	♦△FSC	68- 94
	♦AML	BNT 190- 55
	NSC	SGSI
		TADI
2N4018	♦△FSC	68- 95
	♦AML	BNT 190- 56
	NSC	SGSI
		TADI
2N4019	♦△FSC	68- 96
	♦AML	BNT 190- 57
	NSC	SGSI
		TADI
2N4020	♦△FSC	68-110
	BNT	NSC 183- 23
	SGSI	TADI
2N4021	♦△FSC	68- 97
	BNT	NSC 183- 24
	SGSI	TADI
2N4022	♦△FSC	69- 1
	BNT	NSC 183- 25
	SGSI	TADI
2N4023	♦△FSC	69- 2
	NSC	TADI 183- 26
2N4024	♦△FSC	68- 98
	NSC	SGSI 183- 27
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2N4025	♦△FSC	69- 3
	NSC	TADI 183- 28
2N4026	♦△FSC	70- 26
	SGSI	TEC 179- 3
2N4027	♦△FSC	70- 27
	SGSI	TEC 179- 4
2N4028	♦△FSC	70- 43
	SGSI	TEC 179-101
2N4029	♦△FSC	70- 44
	SGSI	TEC 179-102
2N4030	♦△FSC	71- 59
	INTG	♦ITT 179- 5
	NSC	RAYN
	SGSI	STCB
		TEC
2N4031	♦△FSC	71- 60
	INTG	♦ITT 179- 6
	NSC	SGSI
	STCB	TEC
2N4032	♦△FSC	71- 87
	INTG	♦ITT 179-103
	NSC	RAYN
	SGSI	STCB
		TEC
2N4033	♦△FSC	71- 88
	INTG	♦ITT 179-104
	NSC	SGSI
	STCB	TEC
2N4034	♦△FSC	67- 92
	ITT	SGSI 178- 88
		SSI
2N4035	♦△FSC	67- 95
	SGSI	SSI 179- 36
2N4036	♦△RCA	125- 21
	ATEI	SCA 170- 45
	SSI	TEC
2N4037	♦△RCA	125- 28
	ETC	SCA
	SSI	TEC
2N4038	♦△TRW	107- 35
2N4039	♦△TRW	107- 36
2N4040	♦△TRW	140- 74
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2N4041	♦△TRW	140- 75
	FERB	SEN
		TIIB
2N4044	♦△UCC	183- 29
		♦QDC
2N4045	♦△UCC	183- 30
		♦QDC
2N4046	♦△FSC	102- 48
	INTG	ITT 175- 97
	RAYN	SGSI
		STCB
2N4047	♦△FSC	102- 49
	INTG	ITT 175- 98
	RAYN	SGSI
		STCB
2N4048	♦△MOTA	123- 53
		162- 56
2N4049	♦△MOTA	123- 54
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2N4050	♦△MOTA	123- 55
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2N4051	♦△MOTA	123- 56
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2N4052	♦△MOTA	123- 57
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2N4053	♦△MOTA	123- 58
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2N4054	GESY	136-106
2N4055	GESY	136-107
2N4056	GESY	136-108
2N4057	GESY	136-109
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2N4059	♦△TII	66- 73
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2N4060	♦△TII	66- 74
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2N4061	♦△TII	66- 75
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2N4062	♦△TII	66- 76
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2N4063	♦△RCA	138- 15
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		SSI
2N4064	♦△RCA	138- 16
	ITC	SSI
2N4065	♦△FSC	105- 82
		161- 5
2N4066	♦△FSC	106- 23
		160- 38
2N4067	♦FSC	106- 24
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2N4068	♦△RCA	95- 18
2N4069	♦△RCA	131- 22
2N4070	PIR	143- 58
	SEN	SOD 167- 51
		TEC
2N4071	PIR	143- 59
	SEN	♦SOD 167- 52
		TEC
2N4072	♦△MOTA	90- 19
		SSI
2N4073	♦△MOTA	131- 93
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2N4074	♦△RCA	93- 26
2N4075	♦△FSC	143- 44
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2N4076	♦△FSC	143- 45
	SSP	TEC 169- 64
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		PHIC
2N4078	♦APX	113- 84
		PHIC
2N4079	♦APX	181- 43
		PHIC
2N4080	♦△RAYN	65- 93
	TADI	TEC
2N4082	♦△AML	183- 31
		BNT
2N4083	♦△AML	183- 32
		BNT
2N4084	♦△AML	183- 33
	BNT	♦SIX
		UCC
2N4085	♦△AML	183- 34
	BNT	♦SIX
		UCC
2N4088	△AML	105- 14
2N4089	△AML	105- 15
2N4090	△AML	105- 16
2N4091	♦△AML	112- 54
	APX	BNT
	CDC	♦DIC
	♦MOTA	♦SIX
	TADI	♦TII
	TIIF	♦UCC
2N4091A	△AML	112- 55
2N4092	♦△AML	112- 56
	APX	BNT
	CDC	♦DIC
	♦MOTA	♦SIX
	TADI	♦TII
	TIIF	♦UCC
2N4092A	△AML	112- 57
		160- 16
2N4093	♦△AML	112- 58
	APX	BNT
	CDC	♦DIC
	♦MOTA	SIX
	TADI	♦TII
	TIIF	♦UCC
2N4093A	△AML	112- 59
		160- 55
2N4094	△AML	112- 60
		160- 1
2N4095	△AML	112- 61
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		♦QDC 183- 35
2N4104	△TII	87-102
	SCA	TIIF
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2N4106	♦APX	113- 19
		PHIC
2N4107	♦APX	181- 44
		PHIC
2N4111	ETC	146- 35
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		TEC
2N4112	ETC	146- 36
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		TEC
2N4113	SOD	146- 37
	SSI	TEC
2N4114	SOD	146- 38
	SSI	TEC
2N4115	♦△FSC	147- 73
	SSP	TEC
2N4116	♦△FSC	147- 74
	SSP	TEC
2N4117	♦△SIX	109- 13
		BNT
2N4117A	♦△SIX	109- 14
		BNT
2N4118	♦△SIX	109- 15
		BNT
2N4118A	♦△SIX	109- 16
		BNT
2N4119	♦△SIX	109- 17
		BNT
2N4119A	♦△SIX	109- 18
		BNT
2N4121	♦△FSC	61- 91
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		UEHK
2N4122	♦CDC	61- 96
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		UEHK
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2N4128	♦△TRW	144- 97
	FERB	SEN
2N4130	♦△ITT	152- 78
	INTG	SEN
		STCB
2N4131	SEN	147- 97
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2N4132	△ITT	136-110
2N4133	SSI	132- 66
2N4134	♦△FSC	79- 21
	ETC	SGSI
		SSI
2N4135	♦△FSC	79- 48
	ETC	SGSI
		SSI
2N4136	♦△APX	181- 45
2N4137	♦△FSC	92- 91
	RAYN	SGSI 179- 45
2N4138	♦△TII	83- 97
	♦CRY	TEC
		TIIF
2N4139	♦△AML	109- 19
	BNT	UEHK
2N4140	♦△GIC	86- 70
	BNT	ETC 176- 10
	NSC	♦TEC
		UEHK
2N4141	♦△GIC	86- 71
	BNT	ETC 176- 11
	NSC	♦TEC
		UEHK
2N4142	♦△GIC	64- 87
	BNT	NSC 174- 21
	♦TEC	UEHK
2N4143	♦△GIC	64- 88
	BNT	NSC 174- 22
	♦TEC	UEHK
2N4150	PIR	137- 1
	SOD	SSI 166- 89
	SSP	TEC
JAN2N4150	none	137- 2
		170- 91
2N4207	♦△FSC	65- 86
		180- 34
2N4208	♦△FSC	65- 87
		180- 37
2N4209	♦△FSC	65- 89
		180- 70
2N4210	♦△TEC	153- 74
	SEN	SSI
2N4211	♦△TEC	153- 75
	SEN	SSI
2N4220	♦△MOTA	109- 20
	AML	BNT
	CDC	ESMF
	MISI	♦SIX
		UCC
2N4220A	♦△MOTA	109- 21
	AML	BNT
	CDC	ESMF
	MISI	♦SIX
		UCC
2N4221	♦△MOTA	109- 22
	AML	♦APX
	BNT	CDC
	ESMF	MISI
	♦SIX	UCC
2N4221A	♦△MOTA	109- 23
	AML	♦APX
	BNT	CDC
	ESMF	MISI
	♦SIX	UCC
2N4222	♦△MOTA	109- 24
	AML	♦APX
	BNT	CDC
	ESMF	MISI
	♦SIX	UCC
2N4222A	♦△MOTA	109- 25
	AML	♦APX
	BNT	CDC
	ESMF	MISI
	♦SIX	UCC
2N4223	♦△MOTA	109- 26
	♦AML	BNT
	CDC	♦SIX
		UCC
2N4224	♦△MOTA	109- 27
	♦AML	BNT
	CDC	♦SIX
		UCC
2N4225	♦△SOD	137- 3
		SCA 172- 50
2N4226	♦△SOD	137- 4
		SCA 172- 51
2N4227	♦△GIC	86- 72
	BNT	ETC 176- 12
	NSC	TEC
2N4228	♦△GIC	64- 89
	BNT	NSC 174- 23
		TEC
2N4231	♦MOTA	143- 75
		TEC
2N4232	♦MOTA	143- 76
		TEC
2N4233	♦MOTA	143- 77
		TEC
2N4234	♦△MOTA	125- 29
	SCA	TEC
2N4235	♦△MOTA	125- 30
	SCA	TEC
2N4236	♦△MOTA	125- 31
	SCA	TEC
2N4237	♦△MOTA	99-101
	♦FSC	SOD
	SSI	TEC
2N4238	♦△MOTA	99-102
	♦FSC	SOD
	SSI	TEC
2N4239	♦△MOTA	99-103
	♦FSC	SOD
	SSI	TEC
2N4240	♦△RCA	143- 78
	SSP	TEC 166- 96
2N4241	APX	116- 60
		MINA
2N4241MP	APX	183- 36
2N4242	SOD	120-110
2N4243	SOD	121- 1
2N4244	SOD	121- 2
2N4245	SOD	121- 3
2N4246	SOD	121- 4
2N4247	SOD	121- 5
2N4248	♦△FSC	61- 48
	BNT	CDC
	NSC	PHIL
	SGSI	UEHK
2N4249	♦△FSC	61- 49
	BNT	CDC
	NSC	PHIL
	SGSI	UEHK
2N4250	♦△FSC	61- 50
	BNT	CDC
	NSC	PHIL
		SGSI
2N4251	♦△FSC	83- 27
		ECD 180- 88
2N4252	♦△TII	79- 67
		ETC
2N4253	♦△TII	79- 68
		ETC
2N4254		TIIB 83- 5
2N4255		TIIB 83- 6
2N4256	♦△GESY	76-109
	♦SPR	161- 7
2N4257	♦△FSC	61-100
		179- 74
2N4258	♦△FSC	61-102
		180- 38
2N4259	♦△RCA	76- 27
2N4260	♦△MOTA	61-109
	HSC	
2N4261	♦△MOTA	61-110
	HSC	
2N4264	♦△MOTA	89- 34
		176- 91
2N4265	♦△MOTA	89- 35
		176- 92
2N4267	♦△FSC	105-110
		160- 69
2N4268	♦△FSC	106- 1
		160- 70
2N4269	♦△TEC	90- 55
2N4270	♦△TEC	96-108
2N4271	♦△TEC	138- 78
2N4272	♦△TEC	138- 79
2N4273	♦△TEC	142-109
2N4274	♦△FSC	79- 33
	CDC	ETC 178- 35
	NSC	PHIL
	RAYN	♦TEC
		UEHK
2N4275	♦△FSC	79- 34
	CDC	ETC 178- 36
	NSC	PHIL
	RAYN	♦TEC
		UEHK
2N4276	MOTA	123- 59
		162- 62
2N4277	MOTA	123- 60
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2N4279	△MOTA	123- 62
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2N4280	△MOTA	123- 63
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2N4281	△MOTA	123- 64
		162- 67
2N4282	△MOTA	123- 65
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2N4283	△MOTA	123- 66
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2N4289	♦△NSC	62-104
2N4290	♦△NSC	63- 13
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2N4293	♦△NSC	79- 70
2N4294	♦△NSC	79- 35
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2N4295	♦△NSC	79- 51
		179- 50
2N4296	♦△RCA	132- 50
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2N4297	♦△RCA	132- 51
	ITC	SCA 167- 68
2N4298	♦△RCA	132- 52
		ITC 167- 69
2N4299	♦△RCA	132- 53
		ITC 167- 70
2N4300	♦△TII	142- 74
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	SSP	TEC
		TIIB
2N4301	♦△TII	149- 43
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	TEC	TIIB
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	BNT	♦CDC
2N4303	♦△AML	109- 29
	BNT	♦CDC
2N4304	♦△AML	109- 30
	BNT	♦CDC
2N4305	♦△TRW	138- 80
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		TEC
2N4306	♦△TRW	143- 53
		SEN 160- 97
2N4307	♦△TRW	138- 81
	SEN	SSI 160- 98
		TEC
2N4308	♦△TRW	143- 54
		SEN 160- 99
2N4309	♦△TRW	138- 82
	SEN	SSI 160-100
		TEC
2N4310	♦△TRW	143- 55
		SEN 160-101
2N4311	♦△TRW	138- 83
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	SCA	
2N4315	♦ APX	93 - 79
2N4338	♦△SIX	109 - 31
CDC	UCC	
2N4339	♦△SIX	109 - 32
CDC	UCC	
2N4340	♦△SIX	109 - 33
BNT	CDC	
	UCC	
2N4341	♦△SIX	109 - 34
BNT	CDC	
	UCC	
2N4342	♦△FSC	104 - 47
	UCC	
2N4343	♦△FSC	104 - 48
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ASC	ATEI	
SLA	SOD	
SSI	WESY	
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SSI	WESY	
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2N4360	♦△FSC	104 - 49
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2N4382	♦△FSC	105 - 19
2N4383	♦△SPR	101 - 93
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2N4385	♦△SPR	101 - 94
2N4386	♦△SPR	96 - 4
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2N4387	♦△TEC	126 - 83
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BNT	CDC	
CRY	♦ DIC	
ESMF	MISI	
♦ MOTA	♦ NPC	
♦ SIX	TADI	
♦ TII	TIIF	
2N4392	♦△UCC	112 - 63
AML	♦ APX	159 - 47
BNT	CDC	
CRY	♦ DIC	
ESMF	MISI	
♦ MOTA	♦ NPC	
♦ SIX	TADI	
♦ TII	TIIF	
2N4393	♦△UCC	112 - 64
AML	♦ APX	159 - 48
BNT	CDC	
CRY	♦ DIC	
ESMF	MISI	
♦ MOTA	♦ NPC	
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♦ TII	TIIF	
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SSI	TEC	
2N4396	PPC	149 - 45
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2N4399	♦△MOTA	128 - 97
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2N4405	♦△MOTA	126 - 2
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2N4406	♦△MOTA	126 - 3
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2N4407	♦△MOTA	126 - 4
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3N157	♦△MOTA	105 - 33
3N157A	♦△MOTA	105 - 34
3N158	♦△MOTA	105 - 35
3N158A	♦△MOTA	105 - 36
3N159	♦RCA	111-108
3N160	♦△TII	105-101
3N161	♦△TII	105-102
3N162	△GIC	106 - 40
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3N163	♦△UCC	105-105
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3N164	♦△UCC	105-106
		160 - 32
3N165	♦△UCC	105 - 37
		183-103
3N166	♦△UCC	105 - 38
		160 - 44
3N167	SIX	104 - 71
3N168	SIX	104 - 72
3N169	♦△MOTA	112 - 42
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3N170	♦△MOTA	112 - 43
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3N171	♦△MOTA	112 - 44
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3N172	♦△UCC	105-107
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3N173	♦△UCC	105-108
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3N174	△TII	105-103
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3N175	△GIC	108 - 8
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3N176	△GIC	108 - 9
		160 - 51
3N177	△GIC	108 - 10
		160 - 57
3N178	△GIC	104 - 22
3N179	△GIC	104 - 23
3N180	△GIC	104 - 24
3N181	△GIC	106 - 27
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3N182	△GIC	106 - 28
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3N183	△GIC	106 - 29
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3N184	△GIC	105 - 39
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3N185	△GIC	105 - 40
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3N186	△GIC	105 - 41
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3SK17	MITJ	107 - 25
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3SK21H	HITJ	107 - 27
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3SK23	TOSJ	107 - 78
3SK28	TOSJ	107 - 79
3SK29	NECJ	107 - 10
3SK32	MATJ	107 - 64
3SK35	TOSJ	107 - 80
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3TE609	♦ITT	147 - 59
3TE610	♦ITT	149 - 68
3TX601	♦ITT	130 - 40
3TX602	♦ITT	130 - 41
3TX603	ITT	130 - 42
3UT40	MITJ	107 - 81
4C28	♦GESY	74 - 62
4C29	♦GESY	74 - 63
4C30	♦GESY	74 - 64
4C31	♦GESY	74 - 65
4C43	♦GESY	97 - 11
4D24	♦GESY	73 - 36
4D25	♦GESY	73 - 37
4D26	GESY	73 - 38
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7	SSE	189-107
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12G2	GESY	183-107
12G101	GESY	183-108
12H901	GESY	183-109
12H902	GESY	183-110
12J901	GESY	184 - 1
12J902	GESY	184 - 2
12J905	GESY	184 - 3
12X006	♦GESY	190 - 73
12X008	♦GESY	190 - 74
12X040	♦GESY	190 - 75
12X058	♦GESY	190 - 76
12X059	♦GESY	190 - 77
12X084B	♦GESY	184 - 4
12X165	♦GESY	184 - 5
20	♦SSE	190 - 1
30	♦SSE	190 - 2
40	♦SSE	190 - 3
50	♦SSE	190 - 4
60	♦SSE	190 - 5
70	♦SSE	190 - 6
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72T2	ESMF	132 - 14
73T2	ESMF	132 - 15
74T2	ESMF	132 - 16
82T2	ESMF	138 - 56
90T2	CDLF	77 - 7
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98T2	ESMF	77 - 8
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100T2	ESMF	130 - 43
104T2	ESMF	130 - 44
108T2	CDLF	153 - 90
109T2	CDLF	153 - 91
111T2	ESMF	99 - 97
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121T2	ESMF	79 - 61
151-04	♦WESY	155 - 50
		161 - 75
151-06	♦WESY	155 - 51
		159 - 81
151-08	♦WESY	155 - 52
		159 - 82
151-10	♦WESY	155 - 53
		159 - 83
151-12	♦WESY	155 - 54
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151-14	♦WESY	155 - 55
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151-16	♦WESY	155 - 56
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151-22	♦WESY	155 - 59
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151-24	♦WESY	155 - 60
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151-26	♦WESY	155 - 61
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151-28	♦WESY	155 - 62
		159 - 92
152-04	♦WESY	155 - 63
		159 - 93
152-06	♦WESY	155 - 64
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152-08	♦WESY	155 - 65
		159 - 95
152-10	♦WESY	155 - 66
		159 - 96
152-12	♦WESY	155 - 67
		159 - 97
152-14	♦WESY	155 - 68
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152-16	♦WESY	155 - 69
		159 - 99
152-18	♦WESY	155 - 70
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152-20	♦WESY	155 - 71
		159-101
152-22	♦WESY	155 - 72
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152-24	♦WESY	155 - 73
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152-26	WESY	155 - 74
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152-28	WESY	155 - 75
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153-04	♦WESY	154 - 94
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153-06	♦WESY	154 - 95
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153-08	♦WESY	154 - 96
		159 - 14
153-10	♦WESY	154 - 97
		159 - 15
153-12	♦WESY	154 - 98
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153-14	♦WESY	154 - 99
		159 - 17
153-16	♦WESY	154-100
		159 - 18
153-18	♦WESY	154-101
		159 - 19
153-20	♦WESY	154-102
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153-22	♦WESY	154-103
		159 - 21
153-24	♦WESY	154-104
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153-26	WESY	154-105
		159 - 23
153-28	WESY	154-106
		159 - 24
154-04	♦WESY	154-107
		159 - 25
154-06	♦WESY	154-108
		159 - 26
154-08	♦WESY	154-109
		159 - 27
154-10	♦WESY	154-110
		159 - 28
154-12	♦WESY	155 - 1
		159 - 29
154-14	♦WESY	155 - 2
		159 - 30
154-16	♦WESY	155 - 3
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154-18	♦WESY	155 - 4
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154-20	♦WESY	155 - 5
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154-22	♦WESY	155 - 6
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154-26	WESY	155 - 8
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154-28	WESY	155 - 9
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156-043	♦WESY	150 - 39
156-044	♦WESY	150 - 40
156-064	♦WESY	150 - 41
156-083	♦WESY	150 - 42
156-084	♦WESY	150 - 43
156-104	♦WESY	150 - 44
156-123	♦WESY	150 - 45
156-124	♦WESY	150 - 46
156-143	♦WESY	150 - 47
156-144	♦WESY	150 - 48
156-164	♦WESY	150 - 49
163-04	♦WESY	156-101
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163-06	♦WESY	156-102
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163-08	♦WESY	156-103
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163-10	♦WESY	156-104
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163-12	♦WESY	156-105
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163-14	♦WESY	156-106
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163-16	♦WESY	156-107
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163-18	♦WESY	156-108
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163-20	♦WESY	156-109
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163-22	WESY	156-110
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163-24	WESY	157 - 1
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163-26	WESY	157 - 2
		159 - 66
163-28	WESY	157 - 3
		159 - 67
164-04	♦WESY	157 - 4
		159 - 68
164-06	♦WESY	157 - 5
		159 - 69
164-08	♦WESY	157 - 6
		159 - 70
164-10	♦WESY	157 - 7
		159 - 71
164-12	♦WESY	157 - 8
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164-14	♦WESY	157 - 9
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164-16	♦WESY	157 - 10
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164-18	♦WESY	157 - 11
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181T2B	ESMF	149 - 73
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182T2A	ESMF	149 - 75
182T2B	ESMF	149 - 76
182T2C	ESMF	149 - 77
183T2A	ESMF	149 - 78
183T2B	ESMF	149 - 79
183T2C	ESMF	149 - 80
184T2A	ESMF	149 - 81
184T2B	ESMF	149 - 82
184T2C	ESMF	148 - 36
185T2A	ESMF	149 - 83
185T2B	ESMF	149 - 84
185T2C	ESMF	149 - 85
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1401-0420	♦WESY	158 - 26
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1401-0620	♦WESY	158 - 29
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1401-0625	♦WESY	158 - 30
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1401-0815	♦WESY	158 - 31
		163-102
1401-0820	♦WESY	158 - 32
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1401-0825	♦WESY	158 - 33
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1401-1015	♦WESY	158 - 34
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1401-1020	♦WESY	158 - 35
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1571-33	WESY	143 - 3
1571-34	WESY	143 - 4
1571-35	WESY	143 - 5
1571-36	WESY	143 - 6
1571-41	WESY	143 - 7
1571-42	WESY	143 - 8
1571-43	WESY	143 - 9
1571-44	WESY	143 - 10
1571-46	WESY	143 - 11
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1714-0405	♦WESY	143-109
1714-0602	♦WESY	143-110
1714-0605	♦WESY	144 - 1
1714-0802	♦WESY	144 - 2
1714-0805	♦WESY	144 - 3
1714-1002	♦WESY	144 - 4
1714-1005	♦WESY	144 - 5
1714-1202	♦WESY	144 - 6
1714-1205	♦WESY	144 - 7
1714-1402	♦WESY	144 - 8
1714-1405	♦WESY	144 - 9
1714-1602	♦WESY	144 - 10
1714-1605	♦WESY	144 - 11
1714-1802	WESY	144 - 12
1716-0602	WESY	149 - 86
1716-0605	WESY	149 - 87
1716-0802	WESY	149 - 88
1716-0805	WESY	149 - 89
1716-1002	WESY	149 - 90
1716-1005	WESY	149 - 91
1716-1202	WESY	149 - 92
1716-1205	WESY	149 - 93
1716-1402	WESY	149 - 94
1716-1405	WESY	149 - 95
1716-1602	WESY	149 - 96
1716-1605	WESY	149 - 97
1716-1802	WESY	149 - 98
1718-0602	WESY	146 - 55
1718-0605	WESY	146 - 56
1718-0802	WESY	146 - 57
1718-0805	WESY	146 - 58
1718-1002	WESY	146 - 59
1718-1005	WESY	146 - 60
1718-1202	WESY	146 - 61
1718-1205	WESY	146 - 62
1718-1402	WESY	146 - 63
1718-1405	WESY	146 - 64
1718-1602	WESY	146 - 65
1718-1605	WESY	146 - 66
1718-1802	WESY	146 - 67
1723-0405	♦WESY	153 - 7
1723-0410	♦WESY	153 - 8
1723-0605	♦WESY	153 - 9
1723-0610	♦WESY	153 - 10
1723-0805	♦WESY	153 - 11
1723-0810	♦WESY	153 - 12
1723-1005	♦WESY	153 - 13
1723-1010	♦WESY	153 - 14
1723-1205	♦WESY	153 - 15
1723-1210	♦WESY	153 - 16
1723-1405	♦WESY	153 - 17
1723-1410	♦WESY	153 - 18
1723-1605	WESY	153 - 19
1723-1610	WESY	153 - 20
1723-1805	WESY	153 - 21
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1763-0610	WESY	153 - 24
1763-0620	♦WESY	153 - 25
1763-0630	WESY	153 - 26
1763-0810	WESY	153 - 27
1763-0820	♦WESY	153 - 28
1763-0830	WESY	153 - 29
1763-1010	WESY	153 - 30
1763-1020	WESY	153 - 31
1763-1030	WESY	153 - 32
1763-1210	WESY	153 - 33
1763-1220	♦WESY	153 - 34
1763-1230	WESY	153 - 35
1763-1410	WESY	153 - 36
1763-1420	♦WESY	153 - 37
1763-1430	WESY	153 - 38
1763-1610	WESY	153 - 39
1763-1620	WESY	153 - 40
1763-1630	WESY	153 - 41
1763-1810	WESY	153 - 42
1763-1820	WESY	153 - 43
1768-0610	WESY	153 - 92
1768-0620	♦WESY	153 - 93
1768-0630	WESY	153 - 94
1768-0810	WESY	153 - 95
1768-0820	♦WESY	153 - 96
1768-0830	WESY	153 - 97
1768-1010	WESY	153 - 98
1768-1020	♦WESY	153 - 99
1768-1030	WESY	153-100
1768-1210	WESY	153-101
1768-1220	♦WESY	153-102
1768-1230	WESY	153-103
1768-1410	WESY	153-104
1768-1420	♦WESY	153-105
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1768-1820	WESY	154 - 1
1776-0440	♦WESY	155 - 93
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1776-0640	♦WESY	155 - 95
1776-0660	♦WESY	155 - 96
1776-0840	♦WESY	155 - 97
1776-0860	♦WESY	155 - 98
1776-1040	♦WESY	155 - 99
1776-1060	♦WESY	155-100
1776-1240	♦WESY	155-101
1776-1260	♦WESY	155-102
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1776-1460	♦WESY	155-104
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2850-2	♦SSP	146 - 69
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2850-3	♦SSP	138-110
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2851-1	♦SSP	139 - 1
		170 - 56
2851-2	♦SSP	146 - 70
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2851-3	♦SSP	139 - 2
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2852-1	♦SSP	139 - 3
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2852-3	♦SSP	139 - 4
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2853-1	♦SSP	139 - 5
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2855-2	♦SSP	146 - 74
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2855-3	♦SSP	139 - 10
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40082	♦RCA	134 - 56
40084	♦RCA	95 - 92
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40232	♦RCA	95 - 44
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40234	♦RCA	93 - 56
40235	♦RCA	76 - 84
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40237	♦RCA	76 - 86
40238	♦RCA	76 - 70
40239	♦RCA	76 - 71
40240	♦RCA	76 - 72
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40244	♦RCA	76 - 49
40245	♦RCA	76 - 50
40246	♦RCA	76 - 51
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40261	♦RCA	46 - 70
40262	♦RCA	46 - 57
40263	♦RCA	48 - 35
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40279	♦RCA	139 - 13
40280	♦RCA	135 - 79
40281	♦RCA	139 - 14
40282	♦RCA	141 - 90
40290	♦RCA	135 - 80
40291	♦RCA	139 - 15
40292	♦RCA	141 - 91
40294	♦RCA	80 - 15
40295	♦RCA	80 - 56
40296	♦RCA	81 - 7
40305	♦RCA	135 - 81
40306	♦RCA	139 - 16
40307	♦RCA	141 - 57
40309	♦RCA	134 - 57
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40319	♦RCA	126 - 10
40320	♦RCA	134 - 62
40321	♦RCA	135 - 24
40322	♦RCA	144 - 15
40323	♦RCA	134 - 63
40324	♦RCA	143 - 16
40325	♦RCA	151 - 13
40326	♦RCA	135 - 25
40327	♦RCA	135 - 26
40328	♦RCA	144 - 16
40329	♦RCA	48 -101
40340	♦RCA	148 - 37
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40346V2	♦RCA	139 - 18
40347	♦RCA	137 - 19
40347V1	♦RCA	133 - 46
40347V2	♦RCA	139 - 19
40348	♦RCA	137 - 20
40348V1	♦RCA	133 - 47
40348V2	♦RCA	139 - 20
40349	♦RCA	137 - 21
40349V1	♦RCA	133 - 48
40349V2	♦RCA	139 - 21
40354	♦RCA	95 - 93
40355	♦RCA	131 - 26
40359	♦RCA	48 - 36
40360	♦RCA	134 - 64
40361	♦RCA	134 - 65
40362	♦RCA	126 - 11
40363	♦RCA	151 - 14
40364	♦RCA	144 - 17
40366	♦RCA	134 - 66
40367	♦RCA	134 - 67
40368	♦RCA	142 - 32
40369	♦RCA	148 - 87
40372	♦RCA	135 - 27
40373	♦RCA	135 - 28
40374	♦RCA	135 - 29
40375	♦RCA	135 - 30
40385	♦RCA	134 - 68
40389	♦RCA	132 - 86
40390	RCA	138 - 26
40391	♦RCA	125 - 99
40392	♦RCA	135 - 82
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40399	♦RCA	95 - 22
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40451	♦RCA	132 - 89
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40452	♦RCA	132 - 90
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40455	♦RCA	132 - 93
40456	♦RCA	132 - 94
40458	♦RCA	96 - 19
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40459	♦RCA	132 - 95
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40461	♦RCA	107 - 41
40462	♦RCA	117 - 49
40467A	♦RCA	111 -109
40468	♦RCA	107 - 28
40468A	♦RCA	111 - 78
40472	♦RCA	76 - 81
40473	♦RCA	76 - 82
40474	♦RCA	76 - 83
40475	♦RCA	76 - 73
40476	♦RCA	76 - 74
40477	♦RCA	76 - 75
40478	♦RCA	76 - 76
40479	♦RCA	76 - 77
40480	♦RCA	76 - 78
40481	♦RCA	76 - 79
40482	♦RCA	76 - 80
40487	♦RCA	46 - 71
40488	♦RCA	46 - 58
40489	♦RCA	46 - 59
40490	♦RCA	48 - 38
40491	♦RCA	140 - 83
40513	♦RCA	151 - 15
40514	♦RCA	151 - 16
40517	♦RCA	80 - 16
40518	♦RCA	80 - 17
40519	♦RCA	86 -109
40537	♦RCA	125 - 33
40538	♦RCA	125 - 34
40539	♦RCA	135 - 15
40542	♦RCA	151 - 17
40543	♦RCA	151 - 18
40544	♦RCA	135 - 83
40559	♦RCA	107 - 29
40559A	♦RCA	111 - 79
40577	♦RCA	96 - 57
40578	RCA	134 - 71
40581	♦RCA	134 - 72
40582	♦RCA	138 - 28
40594	♦RCA	138 - 29
40595	♦RCA	126 - 50
40600	♦RCA	111 -110
40601	♦RCA	112 - 1
40602	♦RCA	112 - 2
40603	♦RCA	112 - 3
40604	♦RCA	112 - 4
40605	♦RCA	135 - 84
40608	♦RCA	132 - 96
40611	♦RCA	134 - 73
40612	♦RCA	113 -109
40613	♦RCA	145 - 72
40616	♦RCA	134 - 74
40618	♦RCA	145 - 73
40621	♦RCA	145 - 74
40622	♦RCA	145 - 75
40623	♦RCA	113 -110
40624	♦RCA	148 - 39
40625	♦RCA	132 - 97
40626	♦RCA	114 - 1
40627	♦RCA	148 - 40
40628	♦RCA	132 - 98
40629	♦RCA	145 - 76
40630	♦RCA	145 - 77
40631	♦RCA	145 - 78
40632	♦RCA	148 - 41
40633	♦RCA	151 - 19
40634	♦RCA	126 - 12
40635	♦RCA	134 - 75
40636	♦RCA	151 - 20
40637	♦RCA	86 -110
40665	♦RCA	141 - 58
40666	♦RCA	138 - 57
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40675	♦RCA	151 - 21
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A190	♦APX	109 - 83
A191	♦APX	107 - 42
A192	♦APX	109 - 84
A193	♦APX	109 - 85
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A202	♦APX	141 - 92
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A210	♦APX	130 - 62
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A238	♦APX	134 - 77
A245	♦APX	133 - 35
A246	♦APX	135 - 85
A247	♦APX	138 - 58
A253	♦APX	140 - 52
A270	♦APX	136 - 85
A271	♦APX	140 - 58
A272	♦APX	143 - 17
A273	♦APX	145 - 22
A274	♦APX	136 - 86
A275	♦APX	140 - 59
A276	♦APX	143 - 18
A277	♦APX	145 - 23
A301	PHIC	85 - 19
A306	PHIC	90 -106
A307	PHIC	90 -107
A310	PHIC	85 - 20
A311	PHIC	84 - 99
A321	♦APX	84 -100
A322	♦APX	84 -101
A417	♦APX	73 - 95
A418	♦APX	73 - 90
A419	♦APX	73 - 91
A420	♦APX	73 - 92
A427	♦APX	75 -109
A430	♦APX	83 - 31
A467	♦APX	73 - 83
A473	♦APX	83 - 46
A480	♦APX	73 - 85
A481	APX	75 - 79
A482	♦APX	75 - 89
A483	♦APX	75 -101
A484	♦APX	75 - 90
A485	♦APX	80 - 18
A486	♦APX	75 -110
A490	♦APX	80 - 52
A492	♦APX	79 -100
A494	♦APX	76 - 22
A495	♦APX	76 - 18
A496	♦APX	82 -102
A497	♦APX	83 - 4
A498	♦APX	107 - 82
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A570	PHIC	190 - 8
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A600	♦APX	184 - 6
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A601	♦APX	184 - 7
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A602	♦APX	184 - 8
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A603	♦APX	184 - 9
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A604	♦APX	184 - 10
	PHIC	
A605	♦APX	184 - 11
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A606	♦APX	184 - 12
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A607	♦APX	77 - 55
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A608	♦APX	77 - 56
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A610S	♦APX	107 - 44
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A611L	♦APX	107 - 45
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A611S	♦APX	107 - 46
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A640L,S	♦APX	77 - 90
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A641L,S	♦APX	77 - 91
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A642L,S	♦APX	77 - 92
		184 - 21
A643L,S	♦APX	184 - 22
A644L,S	♦APX	184 - 23
A645L,S	♦APX	184 - 24
A646	♦APX	79 - 9
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A649L	♦APX	77 - 93
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A649S	♦APX	77 - 94
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A702	♦APX	144 - 18
A705	♦APX	148 - 42
A747A	APX	82 - 84
A747B	♦APX	82 - 85
A748B	♦APX	82 - 86
A748C	♦APX	82 - 87
A749B	♦APX	82 - 88
A749C	♦APX	82 - 89
A777	♦APX	98 - 38
A778	♦APX	133 - 49
A779	♦APX	133 - 50
A1109	♦AML	77 - 73
A1170	♦AML	79 - 10
A1341	♦AML	77 - 74
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AC108	SHWG	43 - 36
AC109	SHWG	43 - 37
AC110	SHWG	43 - 38
AC116	TFKG	50 - 21
AC117	TFKG	56 - 3
AC120	SHWG	54 - 8
AC121	SHWG	56 - 62
AC122	TFKG	44 - 73
AC123	TFKG	50 - 22
AC124	TFKG	55 -110
AC125	APX	56 - 20
	BELI	MINA
	PHIC	PHIN
	RADF	VALG
AC126	APX	56 - 21
	BELI	MINA
	PHIC	PHIN
	RADF	VALG
AC127	APX	59 - 28
	BELI	MINA
	MULB	PHIN

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AC127		
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AC127/AC128	APX	181 - 50
	BELI	MINA
	PHIC	RADF
AC127/AC132	APX	181 - 51
	BELI	MINA
	PHIC	PHIN
		RADF
AC127/AC152	SHWG	181 - 52
AC128	APX	56 - 27
	BELI	MINA
	MULB	PHIC
	PHIN	RADF
		VALG
AC130	APX	181 - 32
	PHIN	RADF
		VALG
AC131	TFKG	45 - 60
AC132	APX	52 - 23
	BELI	MINA
	PHIC	PHIN
	RADF	VALG
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AC135	ATEI	54 - 15
AC136	ATEI	54 - 16
AC137	ATEI	54 - 17
AC138	ATEI	54 - 18
AC138H	ATEI	54 - 19
AC139	ATEI	54 - 20
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AC141	ATEI	59 - 4
AC141B	ATEI	59 - 5
AC141H	ATEI	59 - 6
AC141H-K	ATEI	59 - 21
AC141K	ATEI	59 - 22
AC142	ATEI	54 - 21
AC142H	ATEI	54 - 22
AC142H-K	ATEI	55 - 48
AC142K	ATEI	55 - 49
AC150	TFKG	44 - 72
AC151	SHWG	50 - 29
AC151R	SHWG	50 - 30
AC152	SHWG	56 - 63
AC153	SHWG	56 - 69
AC153K	SHWG	56 - 67
AC160A	TFKG	43 - 92
AC160B	TFKG	43 - 93
AC162	SHWG	56 - 65
AC163	SHWG	56 - 66
AC170	TFKG	47 - 23
AC171	TFKG	47 - 24
AC172	BELI	58 -107
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	PHIN	VALG
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AC176	MULB	59 - 32
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AC176K	SHWG	113 - 18
AC178	TFKG	55 - 37
AC179	TFKG	59 - 20
AC180	ESMF	55 - 68
	MISI	
AC180K	ESMF	113 - 23
	MISI	
AC181	ESMF	59 - 25
	MISI	
AC181K	ESMF	124 - 2
	MISI	
AC182	ESMF	53 - 80
	MISI	
AC183	ESMF	58 -108
	MISI	
AC184	ESMF	54 - 49
	MISI	
AC185	ESMF	59 - 9
	MISI	
AC186	TFKG	59 - 3
AC187	APX	59 - 33
	BELI	MINA
	MULB	PHIC
		RADF
AC187/01	BELI	59 - 36
	PHIC	RADF
AC187/01/AC188/01		
	PHIC	181 - 53
AC187/AC188	APX	181 - 54
	MINA	PHIC
		RADF
AC187K	SHWG	59 - 35
	TFKG	VALG
AC188	APX	56 - 56
	BELI	MINA
	MULB	PHIC
		RADF
AC188/01	BELI	59 - 34
		RADF
AC188K	SHWG	56 - 57
	TFKG	VALG
AC191	ATEI	52 - 84
AC192	ATEI	52 - 85
AC193	ATEI	113 - 20
AC193K	ATEI	113 - 21
AC194	ATEI	124 - 3
AC194K	ATEI	124 - 4
ACY16	TFKG	56 - 55
ACY17	MULB	55 - 40
	NTLB	PHIC
ACY18	MULB	55 - 41
	NTLB	PHIC
ACY19	MULB	55 - 46
	NTLB	PHIC
ACY20	MULB	55 - 42
	NTLB	PHIC
ACY21	MULB	55 - 47
	NTLB	PHIC
ACY22	MULB	55 - 43
	NTLB	PHIC
ACY23	SHWG	50 - 31
ACY24	TFKG	56 - 1
ACY32	SHWG	50 - 32
ACY33	SHWG	56 - 70
ACY38	ESMF	51 - 32
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ACY39	MULB	55 - 44
	NTLB	164 - 41
ACY40	MULB	55 - 39
	NTLB	164 - 14
ACY41	MULB	55 - 38
	NTLB	164 - 6
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ACZ10	TFKG	56 - 2
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AD104	SHWG	116 - 74
AD105	SHWG	116 - 75
AD130	SHWG	117 - 50
AD131	SHWG	117 - 51
AD132	SHWG	117 - 52
AD133	SHWG	117 - 53
AD136	SHWG	114 - 37
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AD138	TFKG	118 - 18
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	VALG	
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AD143	ATEI	117 - 56
AD145	ATEI	117 - 57
AD148	SHWG	114 - 45
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	MULB	PHIC
	PHIN	RADF
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		VALG
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AD152	TFKG	113 - 87
AD155	TFKG	113 - 88
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AD159	TFKG	114 - 38
AD160	TFKG	114 - 39
AD161	APX	124 - 17
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	PHIC	PHIN
	RADF	SHWG
	TFKG	VALG
AD161/AD162	APX	181 - 55
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	PHIC	RADF
		SHWG
AD162	APX	114 - 43
	MINA	MULB
	PHIC	PHIN
	RADF	SHWG
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AD163	SHWG	117 - 59
AD164	TFKG	113 - 91
AD165	TFKG	124 - 15
AD166	SHWG	116 - 77
AD167	SHWG	116 - 78
AD169	TFKG	113 - 92
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	MULB	PHIC
	PHIN	RADF
		VALG
ADZ12	APX	121 - 12
	MULB	PHIC
	PHIN	RADF
		VALG
AF102	MULB	44 - 36
	PHIN	VALG
AF105	TFKG	43 - 48
AF106	ATEI	45 - 8
	SHWG	TFKG
		VALG
AF107	SHWG	52 - 78
AF108	SHWG	52 - 79
AF109	SHWG	45 - 56
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AF109R	ATEI	44 - 70
	SHWG	VALG
AF114	BELI	44 - 21
	MULB	PHIC
	PHIN	SHWG
		VALG
AF114N	MINA	45 - 71
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AF115N	MINA	45 - 72
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RADF	SHWG	
	VALG	
AF121	APX	47-102
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RADF	SHWG	
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PHIN	RADF	
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AF125	APX	44- 90
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PHIN	RADF	
SHWG	VALG	
AF126	APX	44- 91
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AF127	APX	44- 92
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AF135	TFKG	44- 87
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AF138	TFKG	44- 83
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AF169	ATEI	46- 4
AF170	ATEI	46- 5
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AF172	ATEI	46- 7
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AF179	MULB	51- 71
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AF180	MULB	52- 11
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AF181	MULB	49- 23
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AF186W	MULB	47- 21
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AT391	ANOA	69- 40
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AT417	ANOA	64- 97
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AT464	ANOA	71- 65
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AT475	ANOA	101- 2
AT476	ANOA	101- 3
AT477	ANOA	101- 4
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AT482	ANOA	71- 29
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B1178	♦SOD	118- 96
B1181	♦SOD	122- 36
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B3466	♦SOD	137- 23
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B3532	SOD	137- 25
B3533	SOD	137- 26
B3534	SOD	137- 27
B3535	SOD	137- 28
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B3572	SOD	139- 27
B3573	SOD	139- 28
B3574	SOD	139- 29
B3575	SOD	139- 30
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B3592	SOD	144- 26
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B3616	SOD	137- 53
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B3620	SOD	144- 30
B3621	SOD	144- 31
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B3624	SOD	144- 34
B3625	SOD	144- 35
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B3746	♦SOD	158- 43
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B3749	♦SOD	137- 55
B3750	♦SOD	137- 56
B5000	♦SOD	149- 99
B5001	♦SOD	145- 80
B5002	♦SOD	145- 81
B5021	♦SOD	145- 82
B5022	♦SOD	145- 83
B5031	♦SOD	145- 84
B5032	♦SOD	145- 85
B5041	♦SOD	145- 86
B5042	♦SOD	145- 87
B5051	♦SOD	145- 88
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B10475	♦SOD	115- 90
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B102002	SOD	119- 35
B102003	SOD	119- 36
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B103003	SOD	119- 40
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B113005	♦SOD	121- 18
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B143001	♦SOD	139- 33
B143002	♦SOD	139- 34
B143003	♦SOD	139- 35
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B143005	♦SOD	139- 37
B143006	♦SOD	139- 38
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B143011	♦SOD	139- 43
B143012	♦SOD	139- 44
B143013	♦SOD	139- 45
B143014	♦SOD	139- 46
B143015	♦SOD	139- 47
B143016	♦SOD	139- 48
B143017	♦SOD	139- 49
B143018	♦SOD	139- 50
B143019	♦SOD	139- 51
B143020	♦SOD	139- 52
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B143029	♦SOD	139- 61
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B144001	♦SOD	146- 94
B144002	♦SOD	146- 95
B144003	♦SOD	146- 96
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B144005	♦SOD	146- 98
B144006	♦SOD	146- 99
B144007	♦SOD	146-100
B144008	♦SOD	146-101
B145000	♦SOD	146-102
B145001	♦SOD	146-103
B145002	♦SOD	146-104
B145003	♦SOD	146-105
B145004	♦SOD	146-106
B145005	♦SOD	146-107
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B145007	♦SOD	146-109
B145008	♦SOD	146-110
B145009	♦SOD	147- 1
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B146005	♦SOD	148- 48
B146006	♦SOD	148- 49
B146007	♦SOD	148- 50
B146008	♦SOD	148- 51
B146009	♦SOD	148- 52
B146010	♦SOD	148- 53
B146011	♦SOD	148- 54
B146012	♦SOD	148- 55
B146013	♦SOD	148- 56
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B148000	♦SOD	151- 22
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B148001	♦SOD	151- 23
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B148004	♦SOD	151- 26
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B170003	♦SOD	151- 30
B170004	♦SOD	151- 31
B170005	♦SOD	151- 32
B170006	♦SOD	151- 33
B170007	♦SOD	151- 34
B170008	♦SOD	151- 35
B170009	♦SOD	151- 36
B170010	♦SOD	151- 37
B170011	♦SOD	151- 38
B170012	♦SOD	151- 39
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RADF	TFKG	
BC107B	ESMF	87- 8
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BC108	APX	85- 72
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ESMF	MINA	
MISI	MULB	
NTLB	PHIC	
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STCB	TADI	
TIIB	VALG	
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RADF	TFKG	
BC108B	ESMF	87- 10
INTG	MISI	
RADF	TFKG	
BC108C	ESMF	87- 11
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BC109	APX	85- 73
ATEI	BELI	
ESMF	MINA	
MISI	MULB	
NTLB	PHIC	
PHIN	RADF	
SHWG	STCB	
TIIB	VALG	
BC109B	ESMF	87- 12
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RADF	TFKG	
BC109C	ESMF	87- 13
INTG	MISI	
RADF	TFKG	
BC110	SHWG	85- 32
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BC112	VALG	72- 18
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BC114	SGSI	77- 54
BC115	SGSI	84- 32
BC116	SGSI	64- 98
BC117	SGSI	84- 33
BC118	SGSI	78- 78
BC119	SGSI	100- 28
BC120	SGSI	100- 29
BC121	SHWG	72- 62
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BC135	SGSI	78- 80
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BC147B	BELI	81- 32
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BC148	APX	81- 33
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MULB	PHIC	
RADF	SHWG	
TFKG	VALG	
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	RADF	
BC148B	BELI	81- 35
	RADF	
BC148C	BELI	81- 36
	RADF	
BC149	APX	81- 37
BELI	MINA	
MULB	PHIC	
RADF	SHWG	
TFKG	VALG	
BC149B	BELI	81- 38
	RADF	
BC149C	BELI	81- 39
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BC153	SGSI	61- 52
BC154	SGSI	61- 66
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PHIC	RADF	
SHWG	TFKG	
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SGSI	SHWG	
	TFKG	
BC158A	RADF	63- 18
BC158B	RADF	63- 19
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TYPE No.	MFRS	Pg&Line
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BC171B	INTG	86- 81
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BC173C	INTG	87- 15
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MINA	MISI	
PHIC	RADF	
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BC177A	ESMF	64-101
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BC177B	ESMF	64-102
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BC177V	ESMF	64-103
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BC177VI	ESMF	64-104
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BC178	APX	64-105
BELI	ESMF	
MINA	MISI	
PHIC	RADF	
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BC178A	ESMF	64-106
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BC178B	ESMF	64-107
MISI	RADF	
BC178V	ESMF	64-108
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BC178VI	ESMF	64-109
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BC179	APX	64-110
BELI	ESMF	
MINA	MISI	
PHIC	RADF	
SHWG	VALG	
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	RADF	
BC179B	ESMF	65- 1
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BC196B	TFKG	60- 12
BC196VI	TFKG	60- 13
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BC198	TFKG	72- 24
BC199	TFKG	72- 25
BC200	APX	60- 10
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BC201	SHWG	63- 46
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BC203	SHWG	63- 48
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BC204B	ESMF	65- 3
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BC204V	ESMF	65- 4
	MISI	
BC204VI	ESMF	65- 5
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BC205A	ESMF	65- 6
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BC205B	ESMF	65- 7
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BC205V	ESMF	65- 8
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BC205VI	ESMF	65- 9
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BC206B	ESMF	65- 10
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BC207B	ESMF	87- 17
	MISI	

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BC208B	ESMF	87- 19
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BC208C	ESMF	87- 20
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BC209B	ESMF	87- 21
	MISI	
BC209C	ESMF	87- 22
	MISI	
BC210	ESMF	94- 63
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BC211	ESMF	100- 32
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BC212KA	TIIB	65- 12
		174- 91
BC212KB	TIIB	65- 13
		174- 92
BC212L	TIIB	65- 14
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BC212LA	TIIB	65- 15
		174- 94
BC212LB	TIIB	65- 16
		174- 95
BC213K	TIIB	65- 17
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BC213KA	TIIB	65- 18
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BC213KB	TIIB	65- 19
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BC213KC	TIIB	65- 20
		174- 99
BC213L	TIIB	65- 21
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BC213LA	TIIB	65- 22
		174-101
BC213LB	TIIB	65- 23
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BC213LC	TIIB	65- 24
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BC214KB	TIIB	65- 26
		174-105
BC214KC	TIIB	65- 27
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BC214L	TIIB	65- 28
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BC214LB	TIIB	65- 29
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BC214LC	TIIB	65- 30
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BC215B	ESMF	69- 64
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BC238	APX	81- 24
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BC239	APX	81- 41
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BC250B	INTG	64- 78
BC250C	INTG	64- 79
BC251A	INTG	65- 31
BC251B	INTG	65- 32
BC251C	INTG	65- 33
BC252A	INTG	65- 34
BC252B	INTG	65- 35
BC252C	INTG	65- 36
BC253A	INTG	65- 37
BC253B	INTG	65- 38
BC253C	INTG	65- 39
BC256A	INTG	65- 40
BC256B	INTG	65- 41
BC257	SHWG	62- 1
BC258	SHWG	62- 2
BC259	SHWG	62- 3
BC260A	INTG	64- 80
BC260B	INTG	64- 81
BC260C	INTG	64- 82
BC261A	INTG	65- 42
BC261B	INTG	65- 43
BC261C	INTG	65- 44
BC262A	INTG	65- 45
BC262B	INTG	65- 46
BC262C	INTG	65- 47
BC263A	INTG	65- 48
BC263B	INTG	65- 49
BC263C	INTG	65- 50
BC266A	INTG	65- 51
BC266B	INTG	65- 52
BC267	ATEI	85- 80
BC268	ATEI	85- 81
BC269	ATEI	85- 82
BC270	ATEI	85- 83
BC280A	SGSI	90- 60
BC280B	SGSI	90- 61
BC280C	SGSI	90- 62
BC281A	SGSI	66- 83
BC281B	SGSI	66- 84
BC281C	SGSI	66- 85
BC282	SGSI	93- 31
BC283	SGSI	68- 12
BC284A	SGSI	95- 46

TYPE No.	MFRS	Pg&Line
BC284B	SGSI	95- 47
BC285	SGSI	90- 97
BC286	SGSI	101- 63
BC287	SGSI	71- 93
BC288	SGSI	101- 41
BC300	ATEI	135- 86
BC301	ATEI	135- 87
BC303	ATEI	60- 5
BC313	ESMF	99- 99
	MISI	
BC340-6	INTG	101- 64
BC340-10	INTG	101- 65
BC340-16	INTG	101- 66
BC341-6	INTG	101- 67
BC341-10	INTG	101- 68
BC360-6	INTG	71- 70
BC360-10	INTG	71- 71
BC360-16	INTG	71- 72
BC361-6	INTG	71- 73
BC361-10	INTG	71- 74
BCW25	TIIB	95- 24
		184- 29
BCW26	TIIB	95- 25
BCW29	APX	60- 46
BCW29R	RADF	60- 47
BCW30	APX	60- 48
BCW30R	RADF	60- 49
BCW31	APX	73- 25
BCW31R	RADF	73- 26
BCW32	APX	73- 27
BCW32R	RADF	73- 28
BCW33	APX	73- 29
BCW33R	RADF	73- 30
BCW34	TIIB	91- 8
BCW35	TIIB	67- 23
BCW36	TIIB	85- 84
BCW37	TIIB	64- 53
BCY10	APX	66- 21
PHIC	PHIN	
RADF	VALG	
BCY11	APX	66- 22
PHIC	PHIN	
RADF	VALG	
BCY12	APX	66- 23
PHIC	PHIN	
RADF	VALG	
BCY13	SHWG	94- 48
BCY14	SHWG	94- 49
BCY15	SHWG	94- 50
BCY16	SHWG	94- 51
BCY17	SHWG	66- 35
	TAGS	
BCY18	SHWG	66- 36
	TAGS	
BCY19	SHWG	66- 33
	TAGS	
BCY20	SHWG	66- 29
BCY21	TAGS	66- 30
BCY23	TAGS	66- 31
BCY24	TAGS	66- 34
BCY25	TAGS	66- 37
BCY26	TAGS	66- 32
BCY27	SHWG	63- 49
	TAGS	
BCY28	SHWG	63- 50
	TAGS	
BCY29	SHWG	62- 20
	TAGS	
BCY30	♦APX	62- 62
MULB	PHIC	
PHIN	RADF	
	VALG	
BCY31	♦APX	62- 68
MULB	PHIC	
PHIN	RADF	
	VALG	
BCY32	♦APX	62- 85
MULB	PHIC	
PHIN	RADF	
TAGS	VALG	
BCY33	♦APX	62- 66
MULB	PHIC	
PHIN	RADF	
TAGS	VALG	
BCY34	♦APX	62- 84
MULB	PHIC	
PHIN	RADF	
TAGS	VALG	
BCY38	♦APX	69-102
MULB	PHIC	
PHIN	RADF	
	VALG	
BCY39	♦APX	69-103
MULB	PHIC	
PHIN	RADF	
	VALG	
BCY40	♦APX	69-105
MULB	PHIC	
PHIN	RADF	
	VALG	
BCY42	STCB	85- 36
BCY43	MULB	85- 37
	STCB	
BCY54	♦APX	69-104
MULB	PHIC	
PHIN	VALG	
BCY55	APX	184- 30
MULB	NTLB	
PHIC	RADF	
	VALG	
BCY56	APX	86- 86
MINA	RADF	
TIIF	VALG	

△-Registered with JEDEC by this manufacturer

♦-Indicates manufacturer's data sheet available in Transistor Information Microfile (TIM)

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TYPE No.	MFRS	Pg&Line
BCY57	APX	87 - 53
MINA	RADF	
	VALG	
BCY58	SHWG	83 - 39
BCY58A	INTG	93 - 18
BCY58B	INTG	93 - 19
BCY58C	INTG	93 - 20
BCY58D	INTG	93 - 21
BCY59	SHWG	83 - 40
	TFKG	
BCY59A	INTG	93 - 22
BCY59B	INTG	93 - 23
BCY59C	INTG	93 - 24
BCY59D	INTG	93 - 25
BCY65	SHWG	131 - 27
BCY66	SHWG	131 - 28
BCY69	ESMF	85 - 85
	MISI	
BCY70	MULB	66 - 67
NTLB	PHIC	
RADF	TIIB	
	VALG	
BCY71	MULB	66 - 70
NTLB	PHIC	
RADF	VALG	
BCY72	MULB	66 - 66
NTLB	PHIC	
RADF	TIIB	
	VALG	
BCY78	SHWG	65 - 53
BCY79	SHWG	65 - 54
	TFKG	
BCY87	APX	74 - 57
MULB	PHIC	184 - 31
RADF	VALG	
BCY88	APX	74 - 58
MULB	PHIC	184 - 32
RADF	VALG	
BCY89	APX	74 - 59
MULB	PHIC	184 - 33
RADF	VALG	
BCY90	TAGS	66 - 38
BCY90B	TAGS	68 - 76
BCY91	TAGS	66 - 39
BCY91B	TAGS	68 - 77
BCY92	TAGS	66 - 40
		166 - 79
BCY92B	TAGS	68 - 78
		166 - 80
BCY93	TAGS	66 - 41
BCY93B	TAGS	68 - 79
BCY94	TAGS	66 - 42
BCY94B	TAGS	68 - 80
BCY95	TAGS	66 - 43
		166 - 81
BCY95B	TAGS	68 - 81
		166 - 82
BCY96	TAGS	66 - 44
BCY96B	TAGS	68 - 82
BCY97	TAGS	66 - 45
BCY97B	TAGS	68 - 83
BCY98B	TAGS	68 - 84
BCZ10	APX	62 - 60
PHIC	PHIN	
RADF	VALG	
BCZ11	APX	62 - 67
MULB	PHIC	
PHIN	RADF	
	VALG	
BCZ12	APX	62 - 61
PHIC	PHIN	
RADF	VALG	
BCZ13	APX	60 - 24
PHIN	VALG	
BCZ14	APX	60 - 25
PHIN	VALG	
BD106	STCB	140 - 27
BD106A	INTG	140 - 28
BD106B	INTG	140 - 29
BD107	STCB	140 - 30
BD107A	INTG	140 - 31
BD107B	INTG	140 - 32
BD109	SHWG	142 - 33
BD111	SGSI	144 - 37
BD113	SGSI	144 - 38
BD115	APX	139 - 62
PHIC	RADF	
BD121	MULB	146 - 5
		171 - 22
BD123	MULB	146 - 6
		171 - 9
BD124	APX	141 - 93
MULB	PHIC	171-102
	RADF	
BD127	TFKG	126 - 82
BD128	TFKG	141 - 21
		167 - 56
BD129	TFKG	141 - 22
BD130	ATEI	151 - 76
	SHWG	
BD131	PHIC	143 - 40
BD132	PHIC	127 - 25
BD141	ATEI	151 - 77
BD142	ATEI	151 - 78
BD144	APX	144 - 39
BDY10	MULB	158 - 38
PHIC	PHIN	162 - 97
RADF	VALG	
BDY11	MULB	158 - 39
PHIC	PHIN	162 - 98
RADF	VALG	
BDY12	SHWG	145 - 30
BDY13	SHWG	145 - 31

TYPE No.	MFRS	Pg&Line
BDY15A	INTG	124 - 6
	STCB	140 - 33
BDY15B	INTG	124 - 7
	STCB	140 - 34
BDY15C	INTG	124 - 8
	STCB	140 - 35
BDY16A	INTG	124 - 9
	STCB	140 - 36
BDY16B	INTG	124 - 10
	STCB	140 - 37
BDY17	MULB	151 - 79
PHIC	RADF	
	VALG	
BDY18	MULB	151 - 80
PHIC	RADF	
	VALG	
BDY19	MULB	151 - 81
PHIC	RADF	
	VALG	
BDY23	ESMF	157 - 17
	MISI	
BDY24	ESMF	157 - 18
	MISI	
BDY25	ESMF	157 - 19
	MISI	
BDY26	ESMF	157 - 20
	MISI	
BDY27	ESMF	157 - 21
	MISI	
BDY28	ESMF	157 - 22
	MISI	
BDY34	TFKG	140 - 84
BDY38	APX	151 - 82
MULB	PHIC	
RADF	VALG	
BDY55	ESMF	155-106
	MISI	
BDY56	ESMF	155-107
	MISI	
BDY57	ESMF	154 - 76
	MISI	
BDY58	ESMF	154 - 77
	MISI	
BF108	ESMF	101 - 69
MISI	♦NPC	
BF109	MULB	132 - 60
PHIC	PHIN	
	VALG	
BF110	SHWG	98 - 61
BF111	SHWG	135 - 88
BF114	SHWG	96-106
	TFKG	
BF115△	ESMF	73 - 89
	MISI	
BF115⍁	APX	75 - 34
BELI	MINA	
MULB	PHIC	
PHIN	RADF	
SHWG	TADI	
TFKG	VALG	
BF117	INTG	99 - 18
	STCB	
BF118	INTG	101 - 98
BF119	INTG	101 - 89
BF121	INTG	89 - 85
BF123	INTG	89 - 88
BF125	INTG	89 - 87
BF127	INTG	89 - 86
BF140	ESMF	100 - 33
	MISI	
BF140A	ESMF	100 - 34
	MISI	
BF140R,S	♦NPC	103 - 27
BF152	SGSI	79-101
BF153	SGSI	79 - 11
BF154	SGSI	87 - 80
BF155	SGSI	76 - 46
BF155R,S	♦NPC	103 - 28
BF156	SGSI	101 - 6
BF157	SGSI	101 - 7
BF158	SGSI	79-102
BF159	SGSI	79-103
BF160	SGSI	79 - 77
BF161	SGSI	76 - 44
BF162	SGSI	79 - 78
BF163	SGSI	79 - 79
BF164	SGSI	79 - 80
BF165	SGSI	87 - 23
BF166	SGSI	76 - 40
BF167	APX	73 - 84
ESMF	MINA	
MISI	MULB	
PHIC	RADF	
SGSI	SHWG	
STCB	TFKG	
TIIF	VALG	
	TFKG	83 - 47
BF168	APX	83 - 48
BF173	ESMF	
MINA	MULB	
MISI	PHIN	
PHIC	SHWG	
RADF	TADI	
STCB	VALG	
TFKG	SGSI	101 - 52
BF174	SGSI	76 - 41
BF175	SGSI	82-107
BF176	APX	98 - 39
BF177	ATEI	
ATEI	MINA	
MULB	PHIC	
RADF	SHWG	
TFKG	VALG	
BF178	APX	98 - 40

cont.next col.

TYPE No.	MFRS	Pg&Line
BF178		
(cont.)	ESMF	
MINA	MISI	
MULB	PHIC	
RADF	SHWG	
TFKG	VALG	
BF179	ESMF	98 - 41
MINA	MULB	
PHIC	RADF	
TFKG	VALG	
BF179A	ESMF	133 - 36
MISI	SHWG	
	TFKG	
BF179B	ESMF	133 - 37
MISI	SHWG	
	TFKG	
BF179C	ESMF	133 - 38
MISI	SHWG	
	TFKG	
BF180	APX	75 - 95
ESMF	MINA	
MISI	MULB	
PHIC	RADF	
	TIIB	
BF181	APX	75 - 80
ESMF	MINA	
MISI	MULB	
PHIC	RADF	
BF182	APX	75 - 91
ESMF	MISI	
MULB	PHIC	
	RADF	
BF183	APX	75-102
ESMF	MISI	
MULB	PHIC	
	RADF	
BF184	APX	73 - 97
BELI	MINA	
MULB	PHIC	
RADF	SHWG	
TFKG	VALG	
BF185	APX	73 - 94
BELI	MINA	
MULB	PHIC	
RADF	SHWG	
TFKG	VALG	
BF186	APX	103 - 7
MULB	PHIC	
RADF	VALG	
BF194	APX	81 - 29
BELI	MINA	
MULB	PHIC	
RADF	SHWG	
TFKG	VALG	
BF195	APX	81 - 20
BELI	MINA	
MULB	PHIC	
RADF	SHWG	
TFKG	VALG	
BF196	APX	79 - 41
PHIC	VALG	
BF197	APX	79 - 60
PHIC	VALG	
BF200	APX	75 - 71
ESMF	MINA	
MISI	MULB	
PHIC	RADF	
	TFKG	
BF206	ESMF	79 - 54
	MISI	
BF207	ESMF	75 - 48
	MISI	
BF208	ESMF	81 - 72
	MISI	
BF209	ESMF	79 - 55
	MISI	
BF212	ESMF	79 - 92
	MISI	
BF213	ESMF	79 - 81
	MISI	
BF214	ESMF	76 - 15
	MISI	
BF215	ESMF	76 - 16
	MISI	
BF222	SGSI	76 - 39
BF223	TFKG	93 - 13
BF224	TIIB	92 - 8
BF225	TIIB	92 - 53
BF226	ESMF	76 - 17
	MISI	
BF229	TFKG	72 - 22
BF230	TFKG	72 - 20
BF232	SHWG	83 - 49
BF234	ESMF	86 - 87
	MISI	
BF235	ESMF	86 - 88
	MISI	
BF237	TIIB	90 - 63
BF238	TIIB	90 - 64
BF240	TFKG	83 - 35
BF241	TFKG	83 - 36
BF244	TIIB	111 - 40
BF245	TIIB	111 - 41
BF246	TIIB	111 - 42
BF247	TIIB	111 - 43
BF248	TIIF	94 - 6
BF249	TIIF	69 - 95
BF250	TIIF	93 - 34
BF251	SGSI	75 - 81
BF252	SGSI	75 - 49
BF254	APX	76 - 21
	TFKG	
BF255	APX	76 - 19
	TFKG	

TYPE No.	MFRS	Pg&Line
BF257	TIIB	101 - 90
BF258	TIIB	101 - 91
BF259	TIIB	101 - 92
BF260	ATEI	75 - 96
BF261	ATEI	75 - 97
BF271	SGSI	81 - 76
BF287	SGSI	75-103
BF288	SGSI	75 - 61
BF290	SGSI	75-106
BF291A	SGSI	92 - 45
BF291B	SGSI	92 - 46
BF292A	SGSI	101 - 19
BF292B	SGSI	101 - 20
BF292C	SGSI	101 - 21
BF302	ATEI	75 - 82
BF303	ATEI	75 - 72
BF304	ATEI	75 - 73
BF305	ATEI	101 - 70
BF310	TFKG	82-108
BF311	TFKG	90 - 40
BFS10	SGSI	103 - 44
BFS12	SGSI	71 - 75
BFS13E	SGSI	72 - 28
BFS13F	SGSI	72 - 29
BFS13G	SGSI	72 - 30
BFS14E	SGSI	60 - 14
BFS14F	SGSI	60 - 15
BFS14G	SGSI	60 - 16
BFS15E	SGSI	72 - 31
BFS15F	SGSI	72 - 32
BFS15G	SGSI	72 - 33
BFS16E	SGSI	60 - 20
BFS16F	SGSI	60 - 21
BFS16G	SGSI	60 - 22
BFS17	APX	73 - 34
BFS17R	RADF	73 - 33
BFS18	APX	73 - 22
BFS19	APX	73 - 24
BFS20	APX	73 - 31
BFS22	APX	136 - 87
	RADF	
BFS23	APX	136 - 88
	RADF	
BFS26E	SGSI	60 - 17
BFS26F	SGSI	60 - 18
BFS26G	SGSI	60 - 19
BFS27E	SGSI	72 - 34
BFS27F	SGSI	72 - 35
BFS27G	SGSI	72 - 36
BFS28	APX	107 - 83
BFS29	TIIB	85 - 86
BFS29P	TIIB	75 - 18
BFS30	TIIB	85 - 87
BFS30P	TIIB	75 - 19
BFS31	TIIB	85 - 88
BFS31P	TIIB	75 - 20
BFS32	TIIB	65 - 55
BFS32P	TIIB	61 - 38
BFS33	TIIB	65 - 56
BFS33P	TIIB	61 - 39
BFS34	TIIB	65 - 57
BFS34P	TIIB	61 - 40
BFS36	FERB	89 - 93
BFS36A	FERB	89 - 94
BFS37	FERB	66 - 48
BFS37A	FERB	66 - 49
BFS38	FERB	90 - 6
BFS38A	FERB	90 - 7
BFS39	FERB	90 - 8
BFS40	FERB	66 - 60
BFS40A	FERB	66 - 61
BFS41	FERB	66 - 62
BFS42	FERB	89 - 96
BFS43	FERB	89 - 97
BFS44	FERB	66 - 55
BFS45	FERB	66 - 56
BFS46	FERB	90 - 37
BFS46A	FERB	90 - 38
BFS57	TIIB	80 - 93
BFS57P	TIIB	73 - 75
BFS58	TIIB	81 - 8
BFS58P	TIIB	73 - 79
BFS59	FERB	96 - 20
BFS60	FERB	96 - 21
BFS61	FERB	96 - 22
BFS67	TIIB	109 - 86
BFS67P	TIIB	107 - 47
BFS68	TIIB	109 - 87
BFS68P	TIIB	107 - 48
BFV10	TIIF	75 - 25
BFV11	TIIF	75 - 26
BFV12	TIIF	75 - 36
BFV14	TIIF	74 - 89
BFV16	TIIF	73-105
BFV17	TIIF	74 - 94
BFV18	TIIF	75 - 21
BFV20	TIIF	61 - 35
BFV21	TIIF	61 - 36
BFV22	TIIF	61 - 37
BFV25	TIIF	61 - 23
BFV26	TIIF	61 - 24
BFV27	TIIF	75 - 62
		179 - 75
BFV28	TIIF	75 - 63
		179 - 54
BFV29	TIIF	61 - 45
		178 - 78
BFV30	TIIF	61 - 31
		172 - 35
BFV31	TIIF	61 - 42
		178 - 23
BFV32	TIIF	61 - 43
		178 - 24
BFV33	TIIF	61 - 32

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BFV34	TIIF	60 - 50
		190 - 9
BFV35	TIIF	60 - 51
		190 - 10
BFV36	TIIF	60 - 52
		190 - 11
BFV37	TIIF	74 - 78
		190 - 12
BFV38	TIIF	74 - 79
		190 - 13
BFV40	TIIF	75 - 27
BFV41	TIIF	75 - 37
BFV42	TIIF	75 - 50
		178 - 43
BFV43	TIIF	75 - 40
		176 - 96
BFV44	TIIF	75 - 41
		176 - 97
BFV45	TIIF	75 - 38
BFV46	TIIF	75 - 42
		177 - 28
BFV47	TIIF	75 - 51
BFV49	TIIF	75 - 28
		174 - 32
BFV50	TIIF	75 - 22
		173 - 45
BFV51	TIIF	73-106
		160 - 59
BFV52	TIIF	75 - 23
		173 - 37
BFV53	TIIF	73-107
		160 - 60
BFV54	TIIF	75 - 39
		176 - 24
BFV55	TIIF	75 - 24
		173 - 42
BFV59	TIIF	75 - 83
BFV60	TIIF	73-108
BFV61	TIIF	73-109
BFV62	TIIF	73-110
BFV70	TIIF	190 - 79
BFV71	TIIF	190 - 80
BFV73	TIIF	190 - 81
BFV73N	TIIF	190 - 82
BFV75	TIIF	190 - 83
BFV76	TIIF	190 - 84
BFV80	TIIF	75 - 64
BFV81	TIIF	65 - 77
		178 - 99
BFV81A	TIIF	65 - 78
		178-100
BFV81B	TIIF	65 - 79
		178 - 69
BFV82	TIIF	64 - 39
BFV82A	TIIF	64 - 40
BFV82B	TIIF	64 - 41
		172 - 33
BFV82C	TIIF	64 - 42
		172 - 34
BFV83	TIIF	87 - 24
BFV83A	TIIF	87 - 25
		177 - 29
BFV83B	TIIF	87 - 54
		177-106
BFV83C	TIIF	87 - 55
		178 - 5
BFV85	TIIF	91 - 75
		175 - 66
BFV85A	TIIF	91 - 76
		175 - 67
BFV85B	TIIF	91 - 77
		175 - 68
BFV85C	TIIF	92 - 9
		176-104
BFV85D	TIIF	84 - 13
BFV85E	TIIF	84 - 14
BFV85F	TIIF	84-103
BFV85G	TIIF	84-104
BFV86	TIIF	67 - 42
		174 - 33
BFV86A	TIIF	67 - 43
		174 - 34
BFV86B	TIIF	67 - 44
		174 - 35
BFV86C	TIIF	67 - 45
		174 - 36
BFV87	TIIF	87 - 81
		178 - 44
BFV87A	TIIF	87 - 98
		179 - 55
BFV87B	TIIF	87 - 99
		179 - 56
BFV88	TIIF	91 - 29
		175 - 3
BFV88A	TIIF	91 - 78
		176 - 25
BFV88B	TIIF	91 - 79
		176 - 26
BFV88C	TIIF	91 - 80
		176 - 27
BFV89	TIIF	83 - 99
		190 - 14
BFV89A	TIIF	83-100
		190 - 15
BFV91	TIIF	69 - 98
		178-101
BFV91N	TIIF	69 - 99
		178-102
		190 - 86
BFV92	TIIF	94 - 17
		178 - 6
BFV92N	TIIF	94 - 18
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BFV93	TIIF	94- 7
BFV93A	TIIF	190- 87
BFV93AN	TIIF	190- 88
BFV93N	TIIF	94- 8
		175- 69
BFV94	TIIF	94- 9
		175- 70
BFV94N	TIIF	94- 10
		175- 71
BFV95	TIIF	69- 96
		175- 72
		190- 89
BFV95N	TIIF	69- 97
		175- 73
		190- 90
BFV96	TIIF	93-106
		173- 38
BFV96N	TIIF	93-107
		173- 39
BFV97	TIIF	94- 26
BFV97N	TIIF	94- 27
BFV98	TIIF	93- 37
BFV98N	TIIF	93- 38
BFW10	APX	109- 88
MULB	PHIC	
RADF	VALG	
BFW11	APX	109- 89
MULB	PHIC	
RADF	VALG	
BFW16	APX	99- 45
MULB	PHIC	
RADF	VALG	
BFW17	APX	99- 44
MULB	PHIC	
RADF	VALG	
BFW19	SGSI	98-102
BFW20	SGSI	66- 93
	TIIF	
BFW21	SGSI	66- 94
	TIIF	
BFW22	SGSI	66-102
	TIIF	
BFW23	SGSI	66-103
	TIIF	
BFW24	SGSI	101- 8
BFW25	SGSI	101- 36
BFW26	SGSI	101- 9
BFW29	LTTF	98- 16
	TIIF	
BFW30	APX	83- 32
MULB	PHIC	
RADF	VALG	
BFW31	TIIB	70- 49
	TIIF	172- 65
BFW32	TIIB	96- 23
	TIIF	172- 66
BFW33	SGSI	100- 75
	TIIF	
BFW36	LTTF	98- 42
BFW37	LTTF	98- 36
BFW39	SGSI	184- 34
	TIIF	
BFW39A	SGSI	184- 35
BFW40	SGSI	184- 36
	TIIF	
BFW40A	SGSI	184- 37
BFW43	SGSI	69- 12
BFW44	SGSI	71- 20
BFW45	APX	101- 99
MULB	RADF	
BFW51	SGSI	184- 38
BFW51A	SGSI	184- 39
BFW52	SGSI	184- 40
BFW52A	SGSI	184- 41
BFW54	TIIB	109- 90
BFW55	TIIB	109- 91
BFW56	TIIB	109- 92
BFW57	MULB	85- 22
	PHIC	
BFW58	MULB	85- 23
	PHIC	
BFW59	MULB	85- 24
	PHIC	
BFW60	MULB	85- 25
	PHIC	
BFW61	APX	109- 93
MULB	PHIC	
RADF	VALG	
BFW63	SGSI	75- 84
BFW64	SGSI	75- 92
BFW68	SGSI	92- 54
		175- 87
BFW70	SGSI	81- 75
BFW96	RADF	107- 84
BFW98	RADF	88- 23
BFX11	SGSI	70- 38
	TIIF	184- 42
BFX12	MULB	65- 59
RADF	TIIB	
TIIF	VALG	
BFX13	MULB	65- 61
RADF	TIIB	
TIIF	VALG	
BFX15	TIIF	97- 78
		184- 43
BFX16	SGSI	184- 44
	TIIF	
BFX17	SGSI	102- 54
BFX18	SGSI	79- 42
	TIIF	
BFX19	SGSI	79- 43
BFX20	SGSI	79- 44
BFX21	SGSI	79- 45

TYPE No.	MFRS	Pg&Line
BFX29	MULB	70- 28
NTLB	PHIC	
RADF	TIIB	
	VALG	
BFX30	MULB	70- 7
NTLB	RADF	
TIIB	VALG	
BFX31	SGSI	76- 45
BFX32	TFKG	88- 14
BFX33	TFKG	134- 80
BFX34	SGSI	103- 6
		170- 86
BFX35	SGSI	69- 86
TIIB	TIIF	
BFX36	SGSI	70-107
	TIIF	184- 45
BFX37	MULB	66- 95
	TIIF	
BFX38	SGSI	71- 76
	TIIF	171- 72
BFX39	SGSI	71- 77
	TIIF	171- 73
BFX40	SGSI	71- 78
		171- 74
BFX41	SGSI	71- 79
		171- 75
BFX43	APX	92- 94
MINA	MULB	
PHIC	TIIF	
BFX44	APX	92- 95
MINA	MULB	
PHIC	TIIF	
BFX45	RADF	73- 67
	VALG	173- 46
BFX48	SGSI	67-102
		178- 93
BFX49	RADF	133- 51
BFX50	RADF	90- 9
		172- 98
BFX51	RADF	135- 31
BFX52	RADF	90- 10
		172- 99
BFX55	SHWG	134- 81
BFX59	SHWG	81- 74
BFX60	SHWG	81- 71
BFX61	ESMF	135- 32
	MISI	
BFX62	SHWG	75- 93
BFX63	APX	108- 58
MULB	PHIC	
RADF	VALG	
BFX66	SGSI	94- 83
	TIIF	
BFX67	SGSI	190- 91
BFX68	SGSI	99- 29
	TIIF	
BFX68A	SGSI	101- 71
BFX69	SGSI	101- 42
	TIIF	
BFX69A	SGSI	101- 51
BFX70	SGSI	95- 94
	TIIF	184- 46
BFX71	SGSI	95- 95
	TIIF	184- 47
BFX72	SGSI	95- 96
	TIIF	184- 48
BFX73	SGSI	80- 2
	TIIF	
BFX74	SGSI	98- 24
	TIIF	
BFX74A	SGSI	71- 90
	TIIF	
BFX77	ESMF	79- 12
	MISI	
BFX79	SGSI	181- 56
BFX80	SGSI	181- 57
BFX81	SGSI	181- 58
	TIIF	
BFX84	MINA	100- 76
MULB	NTLB	
	TIIB	
BFX85	MINA	100- 77
MULB	NTLB	
	TIIB	
BFX86	MINA	100- 78
MULB	NTLB	
	TIIB	
BFX87	MULB	70- 94
NTLB	RADF	171- 57
TIIB	TIIF	
	VALG	
BFX88	MULB	70- 95
NTLB	RADF	171- 58
TIIB	VALG	
BFX89	APX	80- 57
MULB	PHIC	
PHIN	RADF	
TFKG	VALG	
BFX90	SGSI	69- 13
BFX91	SGSI	71- 21
BFX92	SGSI	84- 46
	TIIF	
BFX92A	SGSI	90- 95
	TIIF	
BFX93	SGSI	84- 47
	TIIF	
BFX93A	SGSI	90- 96
	TIIF	
BFX94	SGSI	96- 58
	TIIF	
BFX95	SGSI	96- 59
	TIIF	
BFX96	SGSI	102- 55
	TIIF	

TYPE No.	MFRS	Pg&Line
BFX97	SGSI	102- 56
	TIIF	
BFX98	SGSI	100- 35
BFX99	SGSI	95- 97
	TIIF	184- 49
BFY10	APX	84-105
MULB	PHIC	
PHIN	RADF	
TIIF	VALG	
BFY11	APX	84-106
MULB	PHIC	
PHIN	RADF	
TIIF	VALG	
BFY12	SHWG	99- 33
BFY13	SHWG	99- 34
BFY14	SHWG	99- 35
BFY17	STCB	98- 65
		175- 34
BFY18	STCB	86- 67
	TIIB	175- 35
BFY19	STCB	87- 82
TIIB	TIIF	
BFY20	STCB	184- 50
BFY26	TIIB	91- 30
		173- 66
BFY27	TADI	91- 81
	TFKG	
BFY33	SHWG	99- 26
	TIIF	
BFY34	SHWG	99- 27
	TIIF	
BFY37	TIIF	86- 31
BFY39	ESMF	85- 89
MISI	TIIF	
BFY39/I	INTG	85- 90
STCB	VALG	
BFY39/II	INTG	85- 91
	VALG	
BFY39/III	INTG	85- 92
	VALG	
BFY40	INTG	101- 10
	TIIF	
BFY41	INTG	99- 98
STCB	TIIF	
BFY43	STCB	101- 11
BFY44	APX	134- 82
MULB	PHIN	
RADF	TIIF	
	VALG	
BFY45	SHWG	98- 62
BFY46	SHWG	99- 30
	TIIF	
BFY47	SHWG	72- 46
BFY48	SHWG	72- 47
BFY49	SHWG	72- 48
BFY50	APX	101- 12
INTG	MINA	170- 40
MULB	NTLB	
PHIC	PHIN	
RADF	TIIB	
TIIF	VALG	
BFY51	APX	100- 79
INTG	MINA	169- 77
MULB	NTLB	
PHIC	PHIN	
RADF	TIIB	
TIIF	VALG	
BFY52	APX	100- 80
INTG	MINA	169- 78
MULB	NTLB	
PHIC	PHIN	
RADF	TIIB	
TIIF	VALG	
BFY53	NTLB	100- 81
BFY56	SGSI	101- 53
TIIB	TIIF	171- 10
BFY56A	SGSI	101- 54
BFY57	SGSI	100- 36
	TIIF	
BFY63	LTTF	98-100
	SGSI	
BFY64	SGSI	71- 35
TIIB	TIIF	174- 80
BFY65	TFKG	98-108
	TIIF	
BFY67	APX	101- 13
PHIC	RADF	
	TIIF	
BFY67A	TIIF	99- 23
	VALG	
BFY67C	TIIF	99- 24
	VALG	
BFY68A	VALG	99- 25
BFY69	TFKG	72- 38
BFY70	APX	134- 83
MULB	PHIN	
RADF	TIIF	
	VALG	
BFY72	SGSI	102- 70
	TIIF	176- 54
BFY74	SGSI	92- 42
BFY75	SGSI	92- 43
BFY76	SGSI	90- 84
	TIIF	
BFY77	SGSI	90- 89
	TIIF	
BFY78	SGSI	88- 20
	TIIF	
BFY79	SGSI	87- 83
BFY80	TFKG	83- 41
	TIIF	
BFY81	SGSI	184- 51
	TIIF	

TYPE No.	MFRS	Pg&Line
BFY82	SGSI	184- 52
	TIIF	
BFY83	SGSI	184- 53
	TIIF	
BFY84	SGSI	184- 54
	TIIF	
BFY85	TFKG	83- 37
	TIIF	184- 55
BFY86	TFKG	83- 38
	TIIF	184- 56
BFY88	TFKG	80- 3
BFY90	APX	80- 19
MULB	PHIC	
PHIN	RADF	
TFKG	TIIB	
	VALG	
BFY90B	MULB	80- 20
BFY91	STCB	184- 57
	TIIF	
BFY92	STCB	184- 58
	TIIF	
BFY99	SHWG	133- 52
BLY12	STCB	144- 40
BLY14	APX	140- 85
MULB	PHIN	
RADF	VALG	
BLY15A	STCB	140- 38
BLY17	APX	151- 83
MULB	PHIN	
RADF	VALG	
BLY17A	MULB	149-100
	RADF	
BLY17C	RADF	149-101
BLY20	RADF	140- 86
	VALG	
BLY21	RADF	140- 87
	VALG	
BLY22	SHWG	139- 63
BLY33	MULB	135- 89
	RADF	173- 62
BLY34	MULB	135- 90
	RADF	
BLY35	MULB	141- 94
	RADF	
BLY36	MULB	141- 95
	RADF	176- 80
BLY37	RADF	140- 53
		176- 78
BLY38	MULB	132-101
	RADF	
BLY40	LTTF	154- 2
BLY47	TIIB	130- 45
		167- 85
BLY47A	TIIB	130- 46
		167- 86
BLY48	TIIB	130- 47
		167- 87
BLY48A	TIIB	130- 48
		167- 88
BLY49	TIIB	130- 49
		167- 89
BLY49A	TIIB	130- 50
		167- 90
BLY50	TIIB	130- 51
		167- 91
BLY50A	TIIB	130- 52
		167- 92
BLY53	MULB	140- 54
	RADF	
BLY61	TIIB	130- 53
BLY62	TIIB	130- 54
BLY63	TIIB	130- 55
BLY76	RADF	137- 57
BLY87	APX	140- 60
	RADF	
BLY88	APX	143- 19
	RADF	
BLY89	APX	145- 32
	RADF	
BLY91	APX	140- 61
	RADF	
BLY92	APX	143- 20
	RADF	
BLY93	APX	145- 33
	RADF	
BN209	TIIB	184- 59
BPX25	MULB	186- 81
	RADF	
BPX29	MULB	186- 82
	RADF	
BPX30	RADF	186- 83
BPY60	SGSI	186- 84
BPY61/I	SHWG	186- 85
BPY61/II	SHWG	186- 86
BPY61/III	SHWG	186- 87
BPY62/I	SHWG	186- 88
BPY62/II	SHWG	186- 89
BPY62/III	SHWG	186- 90
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BR100B	♦SOD	139- 64
		192- 27
BR100D	♦SOD	145- 34
		192- 28
BR101B	♦SOD	139- 65
		192- 29
BR101D	♦SOD	145- 35
		192- 30
BSV21	TIIF	67- 93
		178-103
BSV35	FERB	90- 36
		179- 57
BSV35A	FERB	90- 22
		177- 30

TYPE No.	MFRS	Pg&Line
BSV36	FERB	90- 39
		180- 16
BSV37	FERB	66- 71
		178-104
BSV38	TIIB	109- 94
		159- 38
BSV38P	TIIB	107- 49
		159- 39
BSV39	TIIB	109- 95
BSV39P	TIIB	107- 50
BSV52	APX	73- 32
		179- 58
BSV53	TIIB	87- 84
		178- 29
BSV53P	TIIB	75- 52
		178- 30
BSV54	TIIB	87- 85
		178- 31
BSV54P	TIIB	75- 53
		178- 32
BSV55	TIIB	65- 80
		178- 84
BSV55A	TIIB	65- 81
		178-105
BSV55AP	TIIB	61- 46
		178-106
BSV55P	TIIB	61- 47
		178- 85
BSW10	TFKG	98- 63
		175- 13
BSW11	TFKG	72- 26
		178- 81
BSW12	TFKG	72- 21
		174- 37
BSW19	TFKG	81- 11
		177- 71
BSW21	ESMF	65- 66
	MISI	
BSW21A	ESMF	65- 67
	MISI	
BSW22	ESMF	65- 68
	MISI	
BSW22A	ESMF	65- 69
	MISI	
BSW23	SGSI	71- 33
	TIIF	174- 38
BSW24	SGSI	69- 87
	TIIF	174- 39
BSW25	SGSI	68- 2
	TIIF	180- 50
BSW26	TIIF	96- 24
		174- 40
BSW27	TIIF	102- 18
		174- 41
BSW28	TIIF	102- 19
		174- 81
BSW29	TIIF	134- 84
		174- 42
BSW30	SGSI	106- 4
		160- 73
BSW31	SGSI	106- 5
		160- 74
BSW32	TIIB	81- 81
BSW33	RADF	73- 70
	VALG	177- 72
BSW34	RADF	73- 71
	VALG	177- 73
BSW35	RADF	73- 72
	VALG	177- 74
BSW41	APX	91- 82
MULB	VALG	176- 38
BSW42	ESMF	87- 26
	MISI	172- 75
BSW42A	ESMF	87- 27
	MISI	172- 76
BSW43	ESMF	87- 28
	MISI	172- 77
BSW43A	ESMF	87- 29
	MISI	172- 78
BSW44	ESMF	65- 70
	MISI	
BSW44A	ESMF	65- 71
	MISI	
BSW45	ESMF	65- 72
	MISI	
BSW45A	ESMF	65- 73
	MISI	
BSW58	VALG	73- 73
		178- 45
BSW59	VALG	73- 74
		179- 59
BSW66	APX	101- 43
	RADF	170-107
BSW67	APX	101- 44
		170-108
BSW68	APX	101- 45
		170-109
BSW69	APX	73- 65
	RADF	172- 26
BSW70	MULB	81- 82
BSW72	INTG	69- 88
BSW73	INTG	69- 89
BSW74	INTG	69- 90
BSW75	INTG	69- 91
BSW82	INTG	96- 60
BSW83	INTG	96- 61
BSW84	INTG	96- 62
BSW85	INTG	96- 63
BSW88	TFKG	81- 68
		175- 16
BSW89	TFKG	81- 69
		175- 17
BSW92	ESMF	87- 30
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BSW95A	SGSI	105- 87
		161- 11
BSX12	SGSI	179- 28
	TIIB	
BSX19	APX	92- 96
BELI	MINA	178- 46
	MULB	
BSX20	APX	93- 1
BELI	MINA	179- 60
MULB	NTLB	
PHIC	RADF	
TIIB	TIIF	
BSX21	APX	84-107
MULB	PHIC	
PHIN	RADF	
TIIF	VALG	
BSX22	INTG	101- 72
STCB	TIIF	
BSX23	INTG	101- 73
	STCB	
BSX24	TIIF	86- 32
BSX25	TFKG	90- 80
	TIIF	
BSX26	SGSI	92-103
TIIB	TIIF	177-107
BSX27	SGSI	88- 13
TIIB	TIIF	180- 12
BSX28	SGSI	93- 6
TIIB	TIIF	178- 61
BSX29	SGSI	67-108
TIIB	TIIF	178-107
BSX30	SGSI	102- 66
TIIB	TIIF	176- 28
BSX32	SGSI	102- 80
	TIIF	177- 57
BSX33	SGSI	95- 71
	TIIF	170- 69
BSX36	SGSI	67- 46
TIIB	TIIF	174- 43
BSX38	TFKG	76- 28
	TIIF	
BSX39	SGSI	93- 2
	TIIF	177-108
BSX40	INTG	71- 80
BSX41	INTG	71- 91
BSX44	APX	87-110
MULB	PHIC	
RADF	TIIF	
BSX45	ESMF	132- 58
MISI	SHWG	
BSX46	SHWG	132- 59
BSX48	SHWG	130- 60
		178-110
BSX49	SHWG	130- 61
		178- 94
BSX51	ESMF	87- 31
MISI	TIIF	172- 80
BSX51A	ESMF	87- 32
MISI	TIIF	172- 81
BSX52	ESMF	87- 33
MISI	TIIF	172- 82
BSX52A	ESMF	87- 34
MISI	TIIF	172- 83
BSX53	TFKG	75- 29
	TIIF	174- 82
BSX54	TFKG	75- 30
	TIIF	174- 83
BSX59	APX	102- 81
FERB	MULB	179- 40
RADF	TIIF	
	VALG	
BSX60	APX	102- 82
FERB	MULB	179- 41
NTLB	PHIC	
RADF	TIIF	
	VALG	
BSX61	APX	102- 83
FERB	MULB	179- 42
NTLB	PHIC	
RADF	TIIF	
	VALG	
BSX62	SHWG	134- 85
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BSX62B	SHWG	134- 86
BSX62C	SHWG	134- 87
BSX62D	SHWG	134- 88
BSX63	SHWG	134- 89
		168- 59
BSX63B	SHWG	134- 90
BSX63C	SHWG	134- 91
BSX66	VALG	86- 33
		175- 19
BSX67	VALG	86- 34
		175- 20
BSX68	TFKG	73- 68
	VALG	173- 47
BSX69	TFKG	73- 69
	VALG	173- 48
BSX70	VALG	95- 98
BSX71	VALG	95- 99
BSX72	TFKG	96-107
	TIIF	175- 74
BSX75	TFKG	96- 64
	TIIF	175- 75
BSX76	MULB	86- 89
TIIB	TIIF	175- 37
BSX77	MULB	86- 90
TIIB	TIIF	175- 48
BSX78	MULB	86- 94
TIIB	TIIF	176- 74
BSX79	TFKG	91- 31
	TIIF	174- 84

TYPE No.	MFRS	Pg&Line
BSX80	TFKG	83- 50
		176-105
BSX81	TFKG	81- 70
		175- 18
BSX82	APX	108- 59
MULB	PHIC	190- 16
RADF	VALG	
BSX84	SGSI	105- 88
		161- 6
BSX85	SGSI	106- 30
		190- 92
BSX87	SGSI	92- 44
	TIIF	177- 31
BSX87A	SGSI	93- 3
	TIIF	178- 15
BSX88	SGSI	92- 55
	TIIF	177- 32
BSX88A	SGSI	92- 35
	TIIF	178- 18
BSX89	SGSI	86- 35
	TIIF	174- 44
BSX90	SGSI	87- 35
	TIIF	176- 85
BSX91	SGSI	87- 36
	TIIF	176- 86
BSX92	SGSI	92-104
	TIIF	180- 4
BSX93	SGSI	93- 7
	TIIF	180- 33
BSX95	VALG	99- 31
		171- 31
BSX96	VALG	99- 32
		171- 32
BSX97	ESMF	94- 1
	MISI	173- 91
BSY10	APX	84-108
MULB	PHIC	
PHIN	RADF	
TIIF	VALG	
BSY11	APX	74-103
MULB	PHIC	
PHIN	RADF	
TIIF	VALG	
BSY17	SHWG	87- 37
	TIIF	
BSY18	SHWG	87- 38
	TIIF	
BSY19	TADI	92- 10
TFKG	TIIF	178- 92
BSY21	TADI	92- 11
TFKG	TIIF	177- 33
BSY24	STCB	98- 25
		171- 11
BSY25	STCB	98- 44
		172- 32
BSY26	MULB	86- 36
	STCB	173- 87
BSY27	MULB	86- 37
	STCB	173- 88
BSY28	STCB	87- 65
		178- 26
BSY29	STCB	87- 66
		178- 25
BSY34	SHWG	99- 43
BSY38	APX	87- 56
BELI	MINA	177- 92
MULB	PHIC	
PHIN	RADF	
	TIIF	
BSY44	TADI	101- 14
TFKG	TIIF	
BSY45	TADI	100- 82
TFKG	TIIF	
BSY46	TADI	100- 83
TFKG	TIIF	169- 98
BSY51	ESMF	101- 74
INTG	MISI	172- 24
STCB	TIIF	
BSY52	ESMF	101- 75
INTG	MISI	172- 25
STCB	TIIF	
BSY53	ESMF	101- 76
INTG	MISI	172- 43
STCB	TIIF	
BSY54	ESMF	101- 77
INTG	MISI	172- 44
STCB	TIIF	
BSY55	INTG	101- 78
STCB	TFKG	
	TIIF	
BSY56	INTG	101- 79
STCB	TFKG	
BSY61	SHWG	78- 81
	TIIF	174- 45
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	TIIF	
BSY63	SHWG	87- 39
BSY70	TADI	87- 47
TFKG	TIIF	
BSY71	TADI	102- 10
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TYPE No.	MFRS	Pg&Line
BSY72	INTG	86- 4
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BSY73	INTG	85- 61
	TIIF	
BSY74	INTG	86- 5
	TIIF	
BSY75	INTG	85- 62
BSY76	INTG	86- 6
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ME0412	UEHK	61- 71
ME0413	UEHK	61- 72
ME0414	UEHK	61- 73
ME0461	UEHK	63- 38
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ME0462	UEHK	63- 39
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ME513	UEHK	67- 60
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MEM302	GIC	104- 28
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MHM2212	♦SOD	191- 69
MHM2213	♦SOD	191- 70
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MHM2217	♦SOD	191- 74
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MHT1809	♦SOD	123- 68
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MHT5011	♦SOD	136- 3
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MHT5013	♦SOD	136- 5
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MHT5053	♦SOD	136- 10
MHT5054	♦SOD	136- 11
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MHT5512	♦SOD	136- 25
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MHT6310	♦SOD	147- 13
MHT6311	♦SOD	147- 14
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MHT6314	♦SOD	147- 17
MHT6315	♦SOD	147- 18
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MHT6414	♦SOD	147- 26
MHT6415	♦SOD	147- 27
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MHT8013	♦SOD	154- 12
MHT8015	♦SOD	154- 13
MHT8016	♦SOD	154- 14
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MHT9006	♦SOD	136- 40
MHT9007	♦SOD	136- 41
MHT9008	♦SOD	136- 42
MHT9009	♦SOD	136- 43
MHT9010	♦SOD	136- 44
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2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	GT34					25	25 Ø	25		10uØ	5.0Ø	1.0m	20	500nb		15	35p	A	TO5	
2	2N231	9.0m*			J	4.5	4.5 Ø		3.0m	3.0u	3.0Ø	500uØ	19 †Δ				6.0pØ	Δ	TO24	F
3#	2SA121	15m	100M		*J	15			2.0m	8.0u	6.0	1.0m	24	.25u	50	5.0	1.3p	G	R14	
4#	2SA122	15m	100M		*J	15			2.0m	8.0u	6.0	1.0m	24	.25u	50	5.0	1.3p	G	R14	
5#	2SA123	15m	100M		*J	15			2.0m	8.0u	6.0	1.0m	24	.25u	50	5.0	1.3p	G	R14	
6#	2SA124	15m	120M		*J	15			2.0m	8.0u	6.0	1.0m	32	.25u	50	5.0	1.3p	G	R14	
7#	2SA125	15m	120M		*J	15			2.0m	2.0u	6.0	1.0m	49	.25u	40	5.0	1.3p	G	R14	
8	JAN2N220	20m		434u	#S	30		12		12u	4.0	500u	40 Δ	800nØb	65 Ø	15 Ø	50pØ	Ø	TO1	A
9	OC60	20m		666u	ØJ	7.0	3.0	7.0	5.0m	1.5uØ	2.0Ø	3.8mØ	75					A	R19	
10#	OC57	20m*	10kΔ	666u	ØJ	7.0	3.0	7.0	10m		.5Ø	250u	35	60u	2.9k	17	60p	A	R19	
11	OC58	20m*	10kΔ	666u	ØJ	7.0	3.0	7.0	10m		.5Ø	250u	55	80u	4.0k	17	60p	A	R19	
12	2N175	20m	850k	3.3m	ØJ	10		10	2.0m	12u	4.0Ø	500uØ	65				36p	Ø	TO40	A
13	2N220	20m	850k	3.3m	ØJ	10		10	2.0m	12u	4.0Ø	500uØ	65	25u	3.5k	944	36p	AØ	TO1	A
14	OC59	20m	2.2M	666u	ØJ	7.0	3.0	7.0	5.0m	3.0uØ	.5Ø	250u	80	100u	5.1k	17	60p	A	R19	
15	2N344	20m†	50M*	666u	*J	5.0	5.0		5.0m	3.0u	3.0Ø	500uØ	22	5.0ub	100		6.0p	SΔ	TO24	F
16	2N345	20m†	50M*	666u	*J	5.0	5.0		5.0m	3.0u	3.0Ø	500uØ	66	5.0ub	100		6.0p	SΔ	TO24	F
17	2N346	20m†	75M*	666u	*J	5.0	5.0		5.0m	3.0u	3.0Ø	500uØ	10 Δ	5.0ub	100		6.0p	SΔ	TO24	F
18	2N534	25m#		1.4m	*J	50	50		25m	15u	5.0Ø	1.0mØ	35 Δ	350nb	35			A	TO23	F
19	2N1499†	25m*		625u	#S	20	15 Ø	2.0	50m	100u	25Ø	10mØ	35 †				1.5p	AD	TO9	A
20#	TF65	25m	700k	2.0m	ØJ	16	12	16	15m	5.0u	2.0	2.0mØ	45	1.8ub	19	4.0	25p	A	R72	
21#	TF65/30	25m	700k	2.0m	ØJ	32	24	32	15m	5.0u	1.0	2.0mØ	45	1.8ub	19	4.0	25p	A	R72	
22	JAN2N240	25m	25M§Δ	416u	#J	6.0	6.0	6.0	15m	10u	3.0Ø	500uØ	16 †Δ				6pØ	Δ	R143	F
23	JAN2N1411	25m*	25M§Δ	625u	#J	5.0			50m	5.0u	1.0Ø	50mØ	20 †Δ				6.0pØ	Δ	TO24	F
24	2N128	25m	28M§Δ		#S	10	4.5 Ø	10	5.0m	3.0u	3.0Ø	500uØ	19 Δ	1.5ub	75		5.0pØ	D	TO24	F
25	2N1122†	25m*	40M§Δ	625u	#J	12	11 Ø		50m	5.0uØ	.25Ø	10mØ	25 †Δ				6pØ	MAØ	TO24	A
26	2N1122A†	25m*	40M§Δ	625u	#J	15	14 Ø		50m	5.0uØ	.25Ø	10mØ	25 †Δ				6pØ	MAØ	TO24	A
27	JAN2N128	25m	45M*Δ	450u	ØS	10		10		15u	3.0	500u	19 Δ	4.0uØb	90 Ø		5.0pØ		TO24	F
28	2N393†	25m*	50.M§	455u	#J	6.0	6.0	6.0	50m	5.0u	3.0	.50m	155				3.5p	MAØ	TO24	F
29	2N1427†	25m*	60M*	625u	#J	6.0	6.0 Ø	6.0	50m	5.0u	3.0	500u	120	1.0ub	55	20	3.5p	MEØ	TO24	A
30	2N2451	25m	80M§Δ		#J	6.0	6.0 Ø		50m	5.0u	.25Ø	10mØ	25 †Δ				6pØ	MA	TO24	A
31	2N503	25m*	350M§	625u	#J	20	20 Ø	.50	50m	100u	10Ø	2.0m	45				1.0p	MD	TO9	A
32	2N252	30m			*A		16		5.0m	10u							1.0p	GD	OV9	
33	2N308	30m			*A	20			5.0m	10u							1.0p	GD	OV9	
34	2N309	30m			*A	20			5.0m	10u							1.0p	GD	OV9	
35	2N310	30m			*A	30			5.0m	10u							1.0p	GD	OV9	
36#	AC108	30mØ	1.0M	2.0m	ØJ	20			50m	5.0u	5.0Ø	1.0mØ	30 Δ				25p	A	TO1	
37#	AC109	30mØ	1.0M	2.0m	ØJ	20			50m	5.0u	5.0Ø	1.0mØ	50 Δ				25p	A	TO1	
38#	AC110	30mØ	1.0M	2.0m	ØJ	20			50m	5.0u	5.0Ø	1.0mØ	75 Δ				25p	A	TO1	
39	2N240	30m	30MΔ*	500u	#J		6.0		15m	3.0uØ	3.0	500uØ	30	1.5ub	66		2.9p	SΔ	TO24	F
40	2N1109	30mØ	30.M		#J	16			5.0m	10uØ	6.0	.50mØ	20				1.5p	GD	TO22	
41	2N1108	30mØ	35.M		#J	16			5.0m	10uØ	6.0	.50mØ	33				1.5p	GD	TO22	
42	2N1110	30mØ	35.M		#J	16			5.0m	10uØ	6.0	.50mØ	29				1.5p	GD	TO22	
43	2N1111	30mØ	35.M		#J	20			5.0m	10uØ	6.0	.50mØ	25				1.0p	GD	TO22	
44	2N1111A	30mØ	35.M		#J	20			5.0m	10uØ	6.0	.50mØ	29				1.5p	GD	TO22	
45	2N1111B	30mØ	35.M		#J	20			5.0m	10uØ	6.0	.50mØ	29				1.5p	GD	TO22	
46	2N1107	30mØ	40.M		#J	16			5.0m	10uØ	6.0	.50mØ	34				1.5p	GD	TO22	
47#	OC614	30m	45M	1.0m	ØJ	25		.80	50m	6.0u	.50	45m						D	R87a	
48#	AF105	30m	55M	1.0m	ØJ	25		.80	50m	6.0u	.50	45m						D	R87a	
49#	OC615	30m	80M	1.0m	ØJ	25		.80	50m	6.0u	.50	45m						D	R87a	
50	2N499	30m*	170M§	769u	#J	30	18	.50	50m	100u							1.3p	MD	TO1	A
51	2N588	30m	250M*	769u	#J	15	15 Ø	.50	50m	15u							1.5p	MDØΔ	TO1	A
52#	V120	30m*	550M§			25			5.0m	10uØ			40							
53	TIXM108	30m$	1.0G§Δ	1.2m	♦S	15	7.0	.30	30m	6.0uØ	5.0Ø	3.0mØ	15 †Δ				1pØ$	PE†Ø	u41	C
54	TIXM107	30m$	1.5G§Δ	1.2m	♦S	15	7.0	.30	30m	6.0uØ	5.0Ø	3.0mØ	15 †Δ				1pØ$	PE†Ø	u41	C
55	2N5044	30m	2.5G§Ø	1.2m	♦S	15	7.0	.30	30m	6.0u	5.0Ø	3.0mØ	150 †Ø				1p$	Ø	TO72	G
56	2N5043	30m	3.0G§Ø	1.2m	♦S	15	7.0	.30	30m	6.0u	5.0Ø	3.0mØ	150 †Ø				1p$	Ø	TO72	G
57	2N77	35m	.70M		*A	25			15m	10u	4.0Ø	.70mØ	55	14u	2.7k	3.2	40p	A	TO1	A
58	2N105	35m	.75M	1.2m	*A	25			15m	5.0uØ	4.0Ø	.70mØ	55	16u	2.8k	5.5	17p	A	TO2	A
59	2N139	35m	13.MØ		ØA	16	12	.50	15m	10u	9.0Ø	1.0mØ	48 Ø		1.0k		9.5p	AΔ	TO40	A
60	2N218	35m	13.MØ		ØA	16	12	.50	15m	10u	9.0Ø	1.0mØ	48 Ø		1.0k		9.5p	AΔ	TO1	A
61#	2SA107	35m	20.M		#S	6.0			10m	10u	3.0	1.0mØ	40					D	TO44	
62	JAN2N393	35m	30M§Δ	476u	#J	10	6.0	10	50m	5.0uØ	3.0Ø	500uØ	40 Δ				4.0pØ		R143	F
63#	2SA106	35m	30.M		#S	6.0			10m	10u	3.0	1.0mØ	50					D	TO44	
64#	2SA105	35m	75.M		#S	6.0			10m	10u	3.0	1.0mØ	50					D	TO44	
65	2N768	35m	175M§	476u	#S	12	10 Ø	1.5	100m	10u	.20Ø	2.0mØ	40 †				1.6p	MDΔ	TO18	A
66	2N769†	35m	900M§	476u	#J	12	7.0	2.0	100m	10u	.50Ø	20mØ	55 †				1.5p	MD	TO18	A
67#	AFY34	35mØ	3.5G*	6.3m	#J	40		.30	20m		12Ø	2.0mØ	10 †Δ					EM		
68#	2SB23	40m			ØJ	15		5.0	10m	10u	6.0Ø	1.0m						A	TO1	
69#	2SB24	40m			ØJ	15		5.0	10m	10u	6.0Ø	1.0m						A	R69	
70#	2SB302	40m	12.M			10		5.0	2.0m	6.0u	6.0	1.0m	80	27u	4.5k	4.0	10p	A	TO1	
71#	2SA260	40m	200M§		#J	20		.40	5.0m	15u	6.0Ø	2.0mØ	10				1.5p	ME	TO17	
72#	2SA261	40m	400M§		#J	20		.40	5.0m	15u	6.0Ø	2.0mØ	10				1.5p	ME	TO17	
73#	2SA262	40m	400M§		#J	20		.40	5.0m	15u	6.0Ø	2.0mØ	10				1.5p	ME	TO17	
74#	2SA263	40m	400M§		#J	20		.40	5.0m	15u	6.0Ø	2.0mØ	10				1.5p	ME	TO17	
75#	2SA264	40m	600M§		#J	20		.40	5.0m	15u	6.0Ø	2.0mØ	10				1.5p	ME	TO17	
76#	2SA265	40m	600M§		#J	20		.40	5.0m	15u	6.0Ø	2.0mØ	10				1.5p	ME	TO17	
77	TIXM104	40m	1.4G§	33m	#A	12	10	.30	20m	6.0uØ	9.0Ø	2.0mØ	10 †Δ				1pØ$	PØ	u26	E
78#	2SA448	40m	1.6G§		ØJ	15		.50	5.0m	10uØ	3.0Ø	3.0mØ	40 †				.3pØ	PL	TO17	
79	TIXM103	40m	1.8G§	33m	#A	12	10	.30	20m	6.0uØ	9.0Ø	2.0mØ	10 †Δ				1pØ$	PØ	u26	E
80	TIXM105	40mΔ	2.2G§Δ	2.6m	#S	12	10	.30	20m	6.0uØ	9.0Ø	2.0mØ	10 †Δ				1pØ$	PEØ	u26	EØ
81	TIXM106	40mΔ	2.2G§Δ	2.6m	#S	12	10	.30	20m	6.0uØ	9.0Ø	2.0mØ	10 †Δ				1pØ$	PEØ†	u41	C
82	2N1785	45m	50.M*	1.3m	#S	10	10 Ø	1.0	50m	10uØ	6.0Ø	1.0mØ	40 †Δ	2.0u	40		3pØ	ME	TO9	A
83	2N1786	45m	50.M*	1.3m	#S	10	10 Ø	.50	50m	10uØ	6.0Ø	1.0mØ	15 †Δ	2.0u	40		3pØ	ME	TO9	A
84	2N1787	45m	50.M*	1.3m	#S	15	15 Ø	.50	50m	10uØ	6.0Ø	1.0mØ	25 †Δ	2.0u	40		3pØ	ME	TO9	A
85	2N36	50m			Ø	20			8.0m		6.0	1.0m	45						OV14	A
86	2N37	50m			Ø	20			8.0m		6.0	1.0m	30						OV11	A
87	2N38	50m			Ø	20			8.0m		6.0	1.0m	15						OV11	A
88	2N108	50m			Ø	20			15m		6.0	1.0m							R108	A
89#	2SA295	50m		900u	ØJ	15	15	15	50m	15u	1.0Ø	10mØ	50 †					MDΔ	R48	
90#	2SB303	50m			ØJ	30		25	20m	14u								AØ	TO1	
91#	2SB349	50m				20				20u	1.5Ø	10mØ	150					A	TO1	
92#	AC160A	50m		1.0m	ØJ	15	10	10	10m	2.0u	4.5Ø	300uØ	35	14u	7.0k	6.5	9.0p	A	R60	
93#	AC160B	50m		1.0m	ØJ	15	10	10	10m	2.0u	4.5Ø	300uØ	100	14u	7.0k	6.5	9.0p	A	R60	
94#	OC65	50m	450k	1.5m	ØJ	10	10	10	10m	12u	2.0	500u	30	23u	2.2k	9.0		A	OV12	
95#	OC66	50m	470k	1.5m	ØJ	10	10	10	10m	12u	2.0	3.0m	47	80u	800	5.0		A	OV12	
96#	2SB68	50m	.50M	833u	#	105		50	100m		.35	5.0m	60 †						TO5	
97#	2SB121	50m	.50M	833u	#J	105	60 §	50	100m	14uØ	.35Ø	5.0mØ	60 †				8.0p	A	TO1	
98	2N34A	50m	.60M		Ø	25			8.0m		6.0	1.0m	60						OV15	
99	2N506	50m	.60M		#	40			100m	15u	1.0	10m	40						OV11	
100	2N591	50m	700k	2.8m	ØA	32	32		20m	7.0uØ	12Ø	2.0m	70					A	TO1	A
101#	2SB39	50m	.85M	833u	#J	10		10	2.0m	10u	4.0Ø	.50m	65	25u	3.5k	9.4	40p	AØ	TO1	
102	2N107	50m	1.0M	5.0m	*	12			10m	10u	5.0	1.0m	19	1.0ub	32	3.0	40p	D	R31	A
103	2N1265/5	50m	1.0M	833u	#J	10		10	100m		6.0Ø	1.0m	75					A	TO5	
104#	OC41	50m*	4.0M§		ØJ	16	15		50m			50m	35					Δ	R8	
105#	OC42	50m*	7.0M§		ØJ	16	15		50m			50m	70					Δ	R8	
106#	2SA116	50m	12M		#S	30				10u	12	12m	1.5	60u				D	TO44	
107#	2SA183	50m	16.M		ØJ	15		15	10m	10u	6.0	1.0m	30				13p	A	TO1	
108	2N398	50m	20M†Δ		*A	105	105	50		14uØ	.35Ø	5.0mØ	60					A	TO9	A
109#	2SA113	50m	20.M		#S	34			10m	7.0u	12	1.0mØ	45					A	TO44	
110#	2SA114	50m	20.M		#S	34			10m	7.0u	12	1.0mØ	40					A	TO44	

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CODE
1#	2SA338	50m	20M	1.0m	ØJ	20		.50	5.0m	16uØ	6.0	1.0m	30				2.5p	D	R18	
2#	2SA218	50m	25.M		ØJ	20		.50	10m	12u	6.0	1.0m	48				2.5p	D	TO44	
3#	2SA321	50m	25M	2.0m	ØJ	20		.50	10m	12u	6.0Ø	1.0m	40				3.0p	D	TO44	
4	GT5148	50m	25.M	1.2m		3.0		1.0		10u	.30Ø	1.0m	25 †				6.0p	MA	TO24	
5#	2SA115	50m	30M		#S	34				10u	7.0	12m	1.0	60u				A	TO44	
6#	2SA322	50m	30M	2.0m	ØJ	20		.50	10m	12u	6.0Ø	1.0m	40				3.0p	D	TO44	
7#	2SA339	50m	30M	1.0m	ØJ	20		.50	5.0m	16uØ	6.0	1.0m	60				2.5p	D	R18	
8#	ASY24	50m	30.M		ØJ	50		.70	250m	20u	6.0	1.0m	100					D	R60	
9#	2SA323	50m	35M	2.0m	ØJ	20		.50	10m	12u	6.0	1.0m	37db at-1.5MHz				3.0p	D	TO44	
10#	2SA219	50m	40.M		ØJ	20		.50	10m	12u	6.0	1.0m	50				2.5p	D	TO44	
11	2N504	50m	50M*Δ	833u	#J	35	25	1.0	50m	10uØ	12	1.0m	16 Δ	1.0u	40 Ø		1.7p	MD	TO1	A
12#	2SA220	50m	50M	2.0m	ØJ	20		.50	10m	12u	6.0Ø	1.0m	150				3.0p	D	TO44	
13#	2SA221	50m	50.M		ØJ	20		.50	10m	12u	6.0	1.0m	75				2.5p	D	TO44	
14#	2SA251†	50m	50.M		ØJ	15	6.0	15	50m	5.0uØ	1.0Ø	15mØ	50 †				2.5p	MDΔ	R48	
15#	2SA408†	50m	50M	900u	ØJ	15	6.0	15	50m	5.0uØ	1.0Ø	15mØ	100 †				3.0p	MDΔ	R48	
16#	2SA324	50m	60M	2.0m	ØJ	20		.50	10m	12u	6.0	1.0m	24db at-10.7MHz				3.0p	D	TO44	
17#	2SA223	50m	64.M		ØJ	20		.50	10m	12u	6.0	1.0m	50				2.5p	D	TO44	
18#	2SA222	50m	70M	2.0m	ØJ	20		.50	10m	12u	6.0	1.0m	130				2.5p	D	TO44	
19#	OC169	50m	70M	1.6m	ØJ	20		.50	10m	13u	6.0	1.0m	100				7.0p	ADØ	TO7	
20	2N1754†	50m	75.M§	833u	#A	13			100m	100u	.50Ø	40mØ	50 †				1.5p	MD	TO9	A
21#	AF114	50m	75M§	1.6m	ØJ	32	32		10m	8.0u	6.0Ø	1.0m	150				2.5p	AD	TO7	
22#	AF115	50m*	75M§	1.6m	ØJ	20	20	1.0	10m	8.0uØ	6.0Ø	1.0mØ	150					ADØ	TO7	
23#	AF116	50m*	75M§	1.6m	ØJ	20	20	1.0	10m	8.0uØ	6.0Ø	1.0mØ	150					ADØ	TO7	
24#	AF117	50m	75M§	1.6m	ØJ	32	32		10m	8.0u	6.0Ø	1.0m	150					AD	TO7	
25#	2SA224	50m	80.M		ØJ	20		.50	10m	12u	6.0	1.0m	80				1.5p	D	TO44	
26#	2SA227	50m	80M	2.0m	ØJ	20		.50	10m	12u							3.0p	D	TO44	
27#	2SA252†	50m	80.M		ØJ	15	6.0	15	50m	5.0uØ	1.0Ø	15mØ	150 †				2.5p	MDΔ	R48	
28#	2SA409†	50m	80M	900u	ØJ	15	6.0	15	50m	5.0uØ	1.0Ø	15mØ	100 †				3.0p	MDΔ	R48	
29#	2SA226	50m	95.M		ØJ	20		.50	10m	12u	6.0	1.0m	120				1.5p	D	TO44	
30#	2SA118	50m	100M		#S	30				10u	12	12m	1.5	60u				D	TO44	
31#	2SA225	50m	100M	2.0m	ØJ	20		.50	10m	12u							3.0p	D	TO44	
32#	2SA291	50m	100M	900u	ØJ	20			50m	5.0uØ	6.0Ø	4.0m	40				1.5p	MD	R48	
33	GT5149	50m	100M	1.2m		10		1.0		10u	.30Ø	10m	25 †				3.0p	MA	TO24	
34#	2SA117	50m	110M		#S	30				10u	12	12m	1.5	40u				D	TO44	
35	JAN2N499	50m	120M§Δ	666u	#S	30	18	.50	50m	100u	9.0Ø	1.0m	10 Δ				2.5pØ		R139	A
36#	AF102	50m*	180M§	1.6m	ØJ	25	25		10m	50u	12Ø	1.0m	20 Δ				1.8p	ADØ	TO7	
37#	2SA292	50m	200M§	900u	ØJ	15			50m	5.0uØ	6.0Ø	4.0m	40				1.5p	MD	R48	
38#	2SA241	50m	230M§Δ	1.0m	ØJ		20	.40	5.0m	13uØ	6.0	1.0m	100				1.0p	AD	TO7	
39#	2SA377	50m	230M§Δ	1.0m	ØJ		20	.40	5.0m	13uØ	6.0	1.0m	100				1.0p	AD	TO72	G
40#	2SA378	50m	290M§Δ	1.0m	ØJ		20	.40	5.0m	13uØ	6.0	1.0m	100				1.0p	AD	TO72	G
41#	2SA293	50m	300M§	900u	ØJ	15			50m	5.0uØ	6.0Ø	4.0m	40				1.5p	MD	R48	
42#	2SA420	50m	300M§Δ	588u	#J	20	20 Ø	.50	5.0m	10uØ	6.0Ø	2.0m	20				1.5pØ	ME	TO17	
43#	2SA379	50m	350M§Δ	1.0m	ØJ		20	.40	5.0m	13uØ	6.0	1.0m	100				1.0p	AD	TO72	G
44#	2SA419	50m	350M§Δ	588u	#J	20	20 Ø	.50	5.0m	10uØ	6.0Ø	2.0m	20				1.5pØ	ME	TO17	
45#	2SA294	50m	400M§	900u	ØJ	15			50m	5.0uØ	6.0Ø	4.0m	40				1.5p	MD	R48	
46#	2SA421	50m	400M§Δ	588u	#J	20	20 Ø	.40	5.0m	10uØ	12Ø	2.0m	25				1.2pØ	ME	TP17	
47#	2SA161	50m	500M§		#J	20			15m	5.0u	6.0	20m	13				1.2p	ME	TO18	
48#	2SA162	50m	500M§		#J	20			15m	5.0u	6.0	20m	25				1.2p	ME	TO18	
49#	2SA163	50m	500M§		#J	20			15m	5.0u	6.0	20m	66				1.2p	ME	TO18	
50#	2SA164	50m	500M§		#J	20			15m	5.0u	6.0	20m	13				1.2p	ME	TO18	
51#	2SA165	50m	500M§		#J	20			15m	5.0u	6.0	20m	25				1.2p	ME	TO18	
52#	2SA166	50m	500M§		#J	20			15m	5.0u	6.0	20m	66				1.2p	ME	TO18	
53#	2SA422	50m	500M§Δ	588u	#J	20	20 Ø	.40	5.0m	10uØ	12Ø	2.0m	25				1.2pØ	ME	TO17	
54#	2SA255	55m	5.0M		#J	12		.50	10m	10u	6.0	1.0m	50				10p	A	R18	
55#	2SA254	55m	10.M		#J	12		.50	10m	10u	6.0	1.0m	80				10p	A	R18	
56#	2SA259	55m	30.M		#J	20		.50	10m	10uØ	6.0	1.0m	45				2.2p	D	R18	
57#	2SA470	55m	30.M§	1.1m	#J	18		.50	10m	12uØ	6.0Ø	1.0m	75				2.0p	D	TO1	
58#	2SA471	55m	30.M§	1.1m	#J	18		.50	10m	12uØ	6.0Ø	1.0m	50				2.0p	D	TO1	
59#	2SA472	55m	30.M§	1.1m	#J	18		.50	10m	12uØ	6.0Ø	1.0m	80				2.0p	D	TO1	
60#	2SA258	55m	40.M		#J	20		.50	10m	10uØ	6.0	1.0m	45				2.2p	D	R18	
61#	2SA518	55m	45.M	909u	#J	18		.50	10m	10u							1.6p	D	TO1	A
62#	2SA257	55m	50.M		#J	20		.50	10m	10uØ	6.0	1.0m	60				2.2p	D	R18	
63#	2SA517	55m	55.M	909u	#J	18		.50	10m	10u							1.6p	D	TO1	A
64#	2SA256	55m	60.M		#J	20		.50	10m	10uØ	6.0	1.0m	75 ,				2.2p	D	R18	
65	JAN2N501A†	60m		769u	#S	15	12 Ø	2.0		25u	.50Ø	10mØ	30 †Δ				3.0pØ		R139	A
66	2N1158	60m		769u	#S	20	20 Ø	.50	100m	5.0uØ	10	3.0m	5.7 Δ				3pØ		TO9	A
67	2N1744	60m		500u	♦S	20	20 Ø	.50	50m	10uØ	10Ø	2.0mØ	10 †Δ				1.5pØ		TO9	A
68#	2SA49	60m		1.2m	ØJ	18		12	5.0m	10u							11p	A	TO1	A
69#	2SA53	60m		1.2m	ØJ	18		12	5.0m	10u							11p	A	TO1	A
70#	AF109R	60mØ		1.3m	#J	20	15	.30	10m	8.0uØ	12Ø	1.5mØ	50 †					MEØ	TO72	
71	MD420	60m			♦J	20			50m	10u			10					Ø	TO12	
72#	AC150	60m	1.0M		ØJ	30		12	50m	16u	6.0	2.0m	85					A	R60	
73#	AC122	60m	1.2M		ØJ	30		12	50m	15u	6.0	2.0m	90	22u	2.8k	4.5	21p	A	R60	
74	2N1743	60m	1.7MΔ	500u	♦S	20	20 Ø	.50	50m	10uØ	10Ø	2.0mØ	10 †Δ				1.5pØ		TO9	A
75#	2SA52	60m	7.0M	1.2m	ØJ	18		12	5.0m	10u							11p	A	TO1	A
76	2N1742	60m	10.MΔ	500u	♦S	20	20 Ø	.50	50m	10uØ	10Ø	2.0mØ	10 †Δ				1.5pØ	Ø	TO9	A
77#	2SA101	60m	15M	1.2m	ØJ	40		.50	10m	16uØ	6.0	1.0m	30				4.0p	D	TO1	
78#	2SA102	60m	25M	1.2m	ØJ	40		.50	10m	16u	6.0	1.0m	40				4.0p	D	TO1	
79	2N2083	60m#	30MΔ§	2.0m	#S	30		.50	10m		6.0Ø	1.0m	25 †Δ				3.2pØ		TO7	H
80#	2SA103	60m	35M	1.2m	ØJ	40		.50	10m	16u	6.0	1.0m	50				4.0p	D	TO1	
81#	AF137	60m	35.M		ØJ	25	15	.70		10u	6.0Ø	1.0mØ	60				3.4p	D	R60	
82#	AF136	60m	40.M		ØJ	25	15	.70		10u	6.0Ø	1.0mØ	80				3.5p	D	R60	
83#	AF138	60m	40.M		ØJ	25	15	.70		3.0u	6.0Ø	1.0mØ	100				3.3p	D	R60	
84	2N1748	60m	50M*Δ	769u	#S	25	25 Ø	1.0	50m	10uØ	6.0	1.0m	30 Δ	1.0ubØ	40 Ø		2.5pØ	MD	TO9	A
85	2N1752	60m	50M*Δ	769u	#S	12	12 Ø	2.0	50m	10uØ	6.0	1.0m	30 Δ	1.0ubØ	40 Ø		3.0pØ	MD	TO9	A
86#	2SA104	60m	50M	1.2m	ØJ	40		.50	10m	16uØ	6.0	1.0m	100				4.0p	D	TO1	
87#	AF135	60m	50.M		ØJ	25	15	.70		10u	6.0Ø	1.0mØ	100				2.8p	D	R60	
88#	AF134	60m	55.M		ØJ	25	15	.70		10u	6.0Ø	1.0mØ	110				2.8p	D	R60	
89#	AF124	60m	75M§	1.3m	ØJ	20	20		10m	8.0uØ	6.0Ø	1.0mØ	150				2.5p	AD	TO18	
90#	AF125	60m	75M§	1.3m	ØJ	20	20		10m	8.0uØ	6.0Ø	1.0mØ	150				2.5p	AD	TO18	
91#	AF126	60m	75M§	1.3m	ØJ	20	20		10m	8.0uØ	6.0Ø	1.0mØ	150					ADØ	TO18	
92#	AF127	60m	75M§	1.3m	ØJ	20	20		10m	8.0uØ	6.0Ø	1.0mØ	150					ADØ	TO18	
93	2N501†	60m	90.M§	769u	#S	15	12 Ø	2.0	50m	100u	.50Ø	10mØ	30 †				1.5p	MD	TO1	A
94	2N501A†	60m	90.M§	769u	#J	15	12 Ø	2.0	50m	25u	.50Ø	50mØ	30 †				1.5p	MD	TO1	A
95	2N979†	60m	100M§Δ	769u	#S	20	20 Ø	2.0	100m	3.0uØ	.50Ø	40mØ	50 †				1.5p	MD	TO18	A
96	2N980	60m	100M§Δ	7.7m	#S	20	12	2.0	100m	5.0uØ	.50Ø	40mØ	50 †				1.5p	MD	TO18	A
97	JAN2N1499A†	60m	100M§Δ	769u	#A	20	20 Ø	2.0		25u	.30Ø	10mØ	30 †Δ				3.0pØ		TO9	A
98	JAN2N1500†	60m	100M§Δ	769u	#J	15	12 Ø	2.0	50m	10u	.50Ø	50mØ	20 †Δ				3.0pØ		TO9	A
99	2N1726	60m	100M*	1.3m	#S	20	20 Ø	1.0	50m	10uØ	6.0Ø	1.0mØ	50 †Δ	1.0u	40		2.5pØ	ME	TO9	A
100	2N1727	60m	100M*	1.3m	#S	20	20 Ø	.50	50m	10uØ	6.0Ø	1.0mØ	20 †Δ	1.0u	40		2.5pØ	ME	TO9	A
101	2N1728	60m	100M*	1.3m	#S	20	20 Ø	.50	50m	10uØ	6.0Ø	1.0mØ	40 †Δ	1.0u	40		2.5pØ	ME	TO9	A
102	2N1788	60m	100M*	1.3m	#S	35	35 Ø	1.0	50m	5.0u	12Ø	1.0mØ	50 †Δ	1.0u	40		2.5pØ	ME	TO9	A
103	2N1789	60m	100M*	1.3m	#S	35	35 Ø	.50	50m	7.0u	12Ø	1.0mØ	20 †Δ	1.0u	40		2.5pØ	ME	TO9	A
104	2N1790	60m	100M*	1.3m	#S	35	35 Ø	.50	50m	7.0u	12Ø	1.0mØ	40 †Δ	1.0u	40		2.5pØ	ME	TO9	A
105	2N1864	60m	100M*	1.3m	#S	20	20 Ø	.50	50m	10uØ	6.0Ø	1.0mØ	10 †Δ	1.0u	40		3pØ	ME	TO9	A
106	2N3412	60m	100M§Δ	833u	#S	20	20 Ø	2.0	100m	3.0uØ	5.0Ø	1.0m	25 Δ	50uØ	7.0kØ		3pØ		TO5	A
107	2N1499A†	60m	110M§	769u	#S	20	20 Ø	2.0	100m	25u	.50Ø	40mØ	50 †				1.5p	ME	TO9	A
108	2N499A	60m	120M§Δ	833u	#S	30	18	.50	50m	5.0uØ	9.0Ø	1.0m	20 Δ				2.5pØ		TO1	A
109	JAN2N499A	60m	120M§Δ	769u	#S	30	18	.50	50m	100u	9.0Ø	1.0m	20 Δ				2.5pØ		R139	A
110	2N1748A	60m	132M§	769u	#S	25	25 Ø	1.0	50m	10uØ	6.0	1.0m	70	130nb	26		1.3p	ME	TO9	A

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N1500†	60m	175M§	769u	#S	15	12 §	2.0	50m	25u	.50Ø	10mØ	70				1.5p	MD	TO9	A
2	2N1746	60m	175M*	769u	#S	20	20 Ø	.50	50m	10uØ	6.0Ø	1.0mØ	60 †	9.0u	1.5k	1.3	1.2p	ME	TO9	A
3	2N1745	60m	200M§	769u	#S	20	20 Ø	.50	50m	10uØ	10Ø	2.0mØ	10 †Δ				1.5p	MD	TO9	A
4	2N1747	60m	200MØ	769u	#S	20	20 Ø	.50	50m	10uØ	6.0Ø	1.0mØ	60 †	9.0u	1.5k	1.3	1.8p	ME	TO9	A
5	2N1865	60m	200MØ	769u	#S	20	20 Ø	.50	50m	10uØ	6.0Ø	1.0mØ	70	7.0u	2.0k	1.2	1.8p	ME	TO9	A
6	2N1866	60m	200MØ	769u	#S	35	35 Ø	.50	50m	10uØ	12Ø	1.0mØ	70	7.0u	2.0k	1.1	1.8p	ME	TO9	A
7	2N1867	60m	200MØ	769u	#S	35	35 Ø	.50	50m	10uØ	12Ø	1.0mØ	50	7.0u	2.0k	1.1	1.8p	ME	TO9	A
8#	AF106	60mØ	220M§	1.3m	#J	25	18	.30	10m	10uØ	12Ø	1.0mØ	50 †					ME	TO72	
9#	AFY12	60m*	230M	1.3m	#J	25	18	.05	10m	10u	12Ø	1.0mØ	50 †					MEØ	TO72	
10	2N502	60m	260M§	1.0m	#J	20	20 Ø	.50	50m	20u	10Ø	2.0m	65				1.0p	MDØ	TO9	A
11	2N779A†	60m	320M§Δ	833u	#S	15	15 §	2.0	100m	3.0uØ	.50Ø	10mØ	50 †Δ				2.5pØ		TO18	A
12	2N846A†	60m	320M§Δ	833u	#S	15	15 §	2.0	100m	3.0uØ	.50Ø	10mØ	25 †Δ				2.5pØ		TO18	A
13	2N984†	60m	350M§	769u	#S	15	10	2.0	100m	5.0uØ	.50Ø	10mØ	70 †				1.9p	MD	TO18	A
14	2N2170†	60m	350M§	769u	#S	15	15 Ø	2.0	100m	5.0uØ	.50Ø	10mØ	70 †				1.9p	MD	TO9	A
15	2N2487	60m	360M†Δ				10		100m	3.0uØ	.50Ø	10mØ	20 †Δ				3pØ	MA	TO18	A
16	2N2488	60m	360M†Δ				10		100m	3.0uØ	.50Ø	.50mØ	20 †Δ				3pØ	MA	TO18	A
17	2N2489	60m	360M†Δ				15		100m	2.5uØ	.50Ø	10mØ	20 †Δ				3pØ	MA	TO18	A
18#	2SA436	60m	400M			20		.50	10m	30u	6.0	3.0m	10 Δ				1.2p	ME	TO18	
19#	2SA437	60m	400M			20		.50	10m	30u	6.0	3.0m	10 Δ				1.2p	ME	TO18	
20#	2SA438	60m	400M			20		.50	10m	30u	6.0	3.0m	10 Δ				1.2p	ME	TO18	
21	2N982†	60m	450M§	769u	#S	20	15	2.0	100m	3.0uØ	.50Ø	10mØ	100 †				1.5p	MD	TO18	A
22	2N983†	60m	450M§	769u	#S	15	15	2.0	100m	3.0uØ	.50Ø	10mØ	85 †				1.9p	MD	TO18	A
23	2N2168†	60m	450M§	769u	#S	20	20 Ø	2.0	100m	3.0uØ	.50Ø	10mØ	100 †				1.9p	MD	TO9	A
24	2N2169†	60m	450M§	769u	#S	15	15 Ø	2.0	100m	3.0uØ	.50Ø	10mØ	85 †				1.9p	MD	TO9	A
25#	AF139	60mØ	550M§	1.3m	#J	22	15	.30	10m	8.0uØ	12Ø	1.5mØ	50 †					MEØ	TO72	
26#	AF280	60m	550M§	1.7m	#J		15	.30	10m	1.0u§	10Ø	2.0mØ	25 †				.42p$		TO50	A
27	2N3320†	60m	600M§Δ	769u	#S	15	10	2.0	100m	5.0u	.50Ø	40mØ	40 †Δ				3pØ		TO18	A
28	2N3321†	60m	600M§Δ	769u	#S	12	7.0	2.0	100m	5.0uØ	.50Ø	40mØ	80 †Δ				3.5pØ		TO18	A
29	2N3322†	60m	600M§Δ	769u	#S	12	7.0	2.0	100m	5.0uØ	.50Ø	40mØ	25 †Δ				3.5pØ		TO18	A
30#	2SA453	60m	600M§		#J	22			10m	5.0uØ	3.0Ø	1.0mØ	6.0 †				.6pØ	PL	TO18	
31#	2SA454	60m	600M§		#J	22			10m	5.0uØ	3.0Ø	1.0mØ	12 †				.6pØ	PL	TO18	
32#	2SA455	60m	600M§		#J	22			10m	5.0uØ	3.0Ø	1.0mØ	24 †				.6pØ	PL	TO18	
33#	2SA456	60m	600M§		#J	22			10m	5.0uØ	3.0Ø	1.0mØ	48 †				.6pØ	PL	TO18	
34#	AF240	60m*	650M§	1.3m	#J		15	.30	10m	.50u§Ø							.26p §	Ø	TO72	G
35#	AFY41	60m*	650M§	769u	#J	30	25	.30	10m	.40uØ	5.0Ø	5.0mØ	90 †				1.5p		TO72	
36#	AF239	60mØ	700M	1.3m	#J		15	.30	10m		10Ø	2.0mØ	40 †					MEØ	TO72	
37#	AF239S	60mØ	700M	1.3m	#J		15	.30	10m		10Ø	2.0mØ	40 †					MEØ	TO72	
38#	AF279	60m	780M§	1.7m	#J		15	.30	10m	1.0u§	5.0Ø	5.0mØ	45 †				.42p$	Ø	TO50	A
39	2N1868	60m	850MØ	769u	#S	20	20 Ø	.50	50m	10uØ	10Ø	2.0mØ	33 †				1.5p	ME	TO9	A
40	2N2360	60m	1.6G	769u	♦S	20		.50		10uØ	10Ø	2.0mØ	33 †					MDØ	TO12	G
41	2N2361	60m	1.6G	769u	♦S	20		.50		10uØ	10Ø	2.0mØ	33 †					MD	TO12	G
42	2N2362	60m	1.6G*	769u	#S	20	20 Ø	.50		10uØ	10Ø	2.0mØ	33 †					MD	TO12	G
43	2N2398	60m	1.6G*	769u	#S	20	20 Ø	.50		10uØ	10Ø	2.0mØ	33 †					MDØ	TO12	G
44	2N2399	60m	1.6G*	769u	#S	20	20 Ø	.50		10uØ	10Ø	2.0mØ	33 †					MD	TO12	G
45#	2SA340	63m	70M	1.2m	ØJ	20		.50	10m	13uØ	6.0	1.0m	100				1.5p	AD	TO72	G
46#	2SA341	63m	70M	1.2m	ØJ	20		.50	10m	13uØ	6.0	1.0m	100				1.5p	AD	TO72	G
47#	2SA342	63m	100M	1.2m	ØJ	20		.50	10m	13uØ	6.0	1.0m	100				1.5p	AD	TO72	G
48#	2SB261	65m	2.5M	1.1m	#J	20	15 §	2.5	30m	12uØ	6.0Ø	1.0m	45	20u	2.0k	6.0		A	R18	
49#	2SB262	65m	3.0M	1.1m	#J	20	15 §	2.5	30m	12uØ	6.0Ø	1.0m	90	30u	3.0k	6.0		A	R18	
50	2SB497	65m	3.0M	1.1m	#J	20	15 §	2.5	30m	6.0uØ	6.0Ø	1.0m	90	30u	3.0k	6.0		AØ	R18	
51#	2SA278	65m	11MΔ	1.2m	ØJ	18	16 Ø	12	40m	3.0u	1.0Ø	24mØ	100 †				10p	AΔ	TO5	
52#	2N992	67m		1.3m	ØS	20	20 §	1.0	10m	8.0uØ	6.0Ø	1.0m	40 Δ						TO72	G
53	2N990	67m	44M§Δ	133u	#J	20	20 §	1.0	10m	8.0uØ	6.0Ø	1.0m	40 Δ	300ub	67	300	4.0pØ	AD	TO72	J
54#	2N991	67m	44M§Δ	1.3m	ØS	20	20 §	1.0	10m	8.0uØ	6.0Ø	1.0m	40 Δ				4.0pØ		TO72	G
55	2N993	67m	44M§Δ	1.3m	#J	20	20 §	1.0	10m	8.0uØ	6.0Ø	1.0m	40 Δ	1.0u	4.0k	160	3pØ	MEØ	TO72	J
56#	AF109	72m	200M§Δ	1.1m	ØJ		18		12m										TO18	
57	2N502B	75m		1.0m	#S	30	30 Ø	.50	50m	5.0uØ	10Ø	2.0m	20 Δ				1.6pØ	Ø	TO9	A
58	JAN2N695†	75m		1.0m	#J	15	15	3.5	50m	3.0uØ	.30Ø	10mØ	25 †Δ				5.0pØ		TO17	G
59	2N1158A	75m		1.0m	#S	20	20 Ø	.50	100m	5.0uØ	10	3.0m	9.0 Δ				2.8p		TO9	A
60#	AC131	75m			ØJ	30		10	200m	30u	1.0	50m	67					A	R60	
61	2N206	75m	780k	3.3m	#S	30		12	50m	10u	5.0	1.0m	47	550nb	33	3.2	35p	A	TO1	A
62#	NKT11	75m	1.0MΔ	1.5m	ØJ	18	10	12	100m	5.0uØ	4.5Ø	1.0mØ	90 Δ				13pØ		TO1	A
63	2N265	75m	1.5M	2.0m	*J		25 §		50m	16u	5.0	1.0m	115	500nb	29	4.0	40p	A	R32	
64#	NKT73	75m	2.5M§Δ	1.5m	ØJ	15		10	10m	5.0uØ	4.5Ø	1.0mØ	25 Δ				11p		TO1	A
65#	NKT126†	75m	3.0MΔ	1.5m	ØJ	20	20 §	6.0	500m	5.0uØ	4.5Ø	1.0mØ	75				22pØ		TO5	A
66#	NKT72	75m	6.2M§Δ	1.5m	ØJ	15		10	10m	5.0uØ	4.5Ø	1.0mØ	40 Δ				11p		TO1	A
67#	NKT125†	75m	7.0MΔ	1.5m	ØJ	20	20 §	6.0	500m	5.0uØ	4.5Ø	1.0mØ	100				22pØ		TO5	A
68#	NKT12	75m	7.5MΔ	1.5m	ØJ	18	10	12	100m	5.0uØ	4.5Ø	1.0mØ	45 Δ				13pØ		TO1	A
69#	TF49	75m*	9.0M	2.5m	ØJ	15	10	5.0	300m	1.0uØ	5.0Ø	1.0mØ	90	120u	800	8.0	15p	A	TO1	
70#	NKT124†	75m	15MΔ	1.5m	ØJ	20	20 §	6.0	500m	5.0uØ	4.5Ø	1.0mØ	150				22pØ		TO5	A
71#	AF114N	75m	75M§	1.6m	ØJ	32	15	1.0	10m	8.0uØ	6.0Ø	1.0m	150					AD	TO44	C
72#	AF115N	75m	75M§	1.6m	ØJ	32	15	1.0	10m	8.0uØ	6.0Ø	1.0m	150					ADØ	TO44	C
73#	AF116N	75m	75M§	1.6m	ØJ	32	15	1.0	10m	8.0uØ	6.0Ø	1.0m	150					ADØ	TO44	C
74#	AF117N	75m	75M§	1.6m	ØJ	32	15	1.0	10m	8.0uØ	6.0Ø	1.0m	150					ADØ	TO44	C
75	2N1749	75m	80M§Δ	1.0m	#S	40	40 Ø	1.0	10m	10uØ	6.0Ø	1.0mØ	30 Δ	1.0ub	40 Ø		2.5pØ		TO9	A
76	2N2199	75m	120M§Δ	1.0m	#S	15	10	.50	100m	5.0uØ	10Ø	3.0m	20 Δ				2.8pØ		TO9	A
77	2N2200	75m	120M§Δ	1.0m	#S	15	10	.50	100m	5.0uØ	10Ø	3.0m	70 Ø				2.8pØ		TO9	A
78	2N1499B†	75m	150M§Δ	1.0m	#S	30	20	2.0	100m	3.0uØ	.30Ø	10mØ	40 †Δ				3pØ		TO9	A
79#	AF178	75m	180M§	1.6m	ØJ	25	25	.50	10m	50u	12	1.0mØ	20 Δ				7.5pØ	ADØ	TO12	
80#	2SA240	75m	200M§	1.3m	#J	20	18 Ø	.20	5.0m	10uØ	6.0	1.0m	120 Ø				1.5pØ	EM	TO17	G
81	2N502A	75m	260M§	1.0m	#J	30	30 Ø	.50	50m	20u	10Ø	2.0m	65				1.0p	MDØ	TO9	A
82#	2SA239	75m	300M	1.3m	#J	20		.20	5.0m	10uØ	6.0	2.0m	10				1.5p	ME	TO17	G
83	JAN2N2996	75m	400M§Δ	1.0m	#S	15	10	.30	50m	5.0uØ	6.0Ø	4.0mØ	35 Δ				3.0p	Ø	TO72	G
84	JAN2N2997	75m	400M§Δ	1.0m	#S	30	15	.30	50m	5.0uØ	12Ø	4.0mØ	50 Δ				1.0pØ	Ø	TO72	G
85	2N2795†	75m	450M§	1.0m	#S	25	15	2.5	100m		.30Ø	10mØ	100 †				2.5p	D	TO18	A
86	2N2796†	75m	450M§	1.0m	#S	20	12	2.0	100m		.30Ø	10mØ	60 †				2.5p	D	TO18	A
87	2N2416	75m	500M§	1.0m	#J	15	10	.50	20m	5.0uØ	6.0Ø	2.0mØ	30				1.2p	Ø	TO72	G
88	TI390	75m	500M§	1.0m	#S	18		.30	50m	5.0uØ	6.0Ø	2.0mØ	40 †Δ					EM	TO18	
89	TI391	75m	500M§	1.0m	#S	18		.30	50m	5.0uØ	6.0Ø	2.0mØ	20 †Δ					EM	TO18	
90	TI400	75m	500M§	1.0m	#S	18		.30	50m	5.0uØ	6.0Ø	2.0mØ	40 †Δ					EØ	R80	X
91	TI401	75m	500M§	1.0m	#S	18		.30	50m	5.0uØ	6.0Ø	2.0mØ	20 †Δ					E	R80	X
92	TI402	75m	500M§	1.0m	#S	18		.30	50m	5.0uØ	6.0Ø	2.0mØ	20 †Δ					E	R80	X
93	TI403	75m	500M§	1.0m	#S	18		.30	50m	5.0uØ	6.0Ø	2.0mØ	35 †Δ					E	R80	X
94	2N2996	75m	550M§	1.0m	#S	15	10	.30	50m	100u	6.0Ø	4.0mØ	200				3.0p	DMØ	TO72	G
95	2N2415	75m	560M§	1.0m	#J	15	10	.50	20m	5.0uØ	6.0Ø	2.0mØ	45				1.2p	Ø	TO72	G
96	JAN2N502A	75m	600M§Ø	1.0m	#S	30	30 Ø	.50		10u	10Ø	2.0m	15 Δ				2.0pØ	Ø	ZA27	A
97	JAN2N502B	75m	600M§Ø	1.0m	#S	30	30 Ø	.50		10u	10Ø	2.0m	25 Δ				2.0pØ	Ø	ZA27	A
98	2N2997	75m	600M§	1.0m	#S	30	15	.30	50m	100u	12Ø	4.0mØ	200				1.8p	DMØ	TO72	G
99	2N700	75m	800M§	1.0m	#J	25	20	.20	50m	2.0uØ	6.0Ø	2.0m	10	ub	17		1.1p	ME	TO72	G
100	2N700A	75m	800M§	1.0m	#J	25	25	.20		100u	6.0	2.0m	4.0 Δ				1.4pØ	ME	TO92	G
101	JAN2N700A	75m	800M§Ø	1.0m	#J	25	25	.30	50m	2.0uØ	6.0	2.0m	4.0 Δ	b	30		1.4pØ		TO72	G
102	2N2998	75m	900M§	1.0m	#S	15	12	.30	20m	100u	6.0Ø	3.0mØ	200				1.7p	DMØ	TO72	G
103	2N3267	75m	900M§Δ	1.0m	#S	15	8.0	.20	20m	5.0uØ	6.0Ø	3.0mØ	15 Δ				1.7pØ	Ø	TO72	G
104#	GM656A	75m	930M*	1.0m	#A	18	15	.30	50m	5.0uØ	12Ø	3.0mØ	20 †Δ					EM	R80	X
105	TIXM101	75m	1.5G§Δ	1.0m	#S	15	7.0	.30	50m	6.0uØ	5.0Ø	2.0mØ	70				3pØ	PEØ	TO72	G
106	2N2999	75m	1.6G§	1.0m	#S	15	10	.20	20m	100u	6.0Ø	3.0mØ	100 †				1.7p	DMØ	TO72	G
107#	2SB470	80m		1.2m	#J	25	18 §	2.5	50m	6.0uØ	6.0Ø	1.0m	160	40u	5.0k	.15		A	TO1	
108#	AF146	80m		1.0m	#J	30	30	.50	10m	12uØ	6.0Ø	1.0m	85				4.0p	D	TO7	
109#	AF147	80m		1.0m	#J	24	24	.50	10m	12uØ	6.0Ø	1.0m	70				3.3p	D	TO7	
110#	AF148	80m		1.0m	#J	24	24	.50	10m	12uØ	6.0Ø	1.0m	80				3.3p	D	TO7	

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CODE
1#	AF149	80m		1.0m	#J	24	24	.50	10m	12uØ	6.0Ø	1.0m	225				3.3p	D	TO7	
2#	AF150	80m		1.0m	#J	24	24	.50	10m	12uØ	6.0Ø	1.0m	70				3.3p	D	TO7	
3#	AF168	80m		1.3m	#J	30	30 Ø	.50	10m	12uØ	6.0Ø	1.0mØ	85				3.1p	D	TO44	
4#	AF169	80m		1.0m	#J	24	24	.50	10m	12uØ	6.0Ø	1.0m	70				3.3p	D	TO44	
5#	AF170	80m		1.3m	#J	24	24 Ø	.50	10m	12uØ	6.0Ø	1.0mØ	80				3.5p	D	TO44	
6#	AF171	80m		1.3m	#J	24	24 Ø	.50	10m	12uØ	6.0Ø	1.0mØ	225				3.5p	D	TO44	
7#	AF172	80m		1.3m	#J	24	24 Ø	.50	10m	12uØ	6.0Ø	1.0mØ	70				3.5p	D	TO44	
8	2N1266	80m	1.0M		#J		10				6.0Ø	1.0mØ	48				11p		TO22	A
9#	AC107	80m	2.0M	1.6m	ØJ	15	15	5.0	10m	3.0uØ	5.0	300u	60				14p	AØ	R9	
10#	2SA12H	80m	5.0MΔ			16		12	15m	6.0u	6.0Ø	1.0m	60				10p	A	TO1	
11#	2SA15H	80m	5.0MΔ			16	13	13	15m	4.0u	6.0Ø	1.0mØ	70				10p	A	TO1	
12#	2SA31	80m	5.0M	1.3m	#J	12		.50	10m	10u	6.0Ø	1.0m	50	24.u	1.5k	3.2	10p	A	TO1	
13#	2SA36	80m	5.0M	1.3m	#J	16		.50	15m	6.0uØ	6.0Ø	1.0m	50 *	24.u	1.5k	3.2	10p	A	TO1	
14#	2SA40†	80m	5.0M	1.3m	#J	25	18 §	12	50m	6.0uØ	6.0Ø	1.0m	65				10p	A	TO1	
15#	2SA137	80m	5.0M	1.3m	#J	6.0		.50	10m	10u	3.0Ø	1.0m	50	32.u	1.6k	4.6		A	TO1	
16#	2SA189	80m	6.0M	1.3m	#J	12		.50	15m	10u	6.0	1.0m	65				10p	A	TO1	
17	2N409	80m	6.8M	1.5m	ØA	13		.50	15m	10uØ	9.0Ø	1.0m	48				9.5p	A	TO40	A
18	2N410	80m	6.8M	1.5m	ØA	13		.50	15m	10uØ	9.0	1.0m	48				9.5p	A	TO1	A
19#	2SA12	80m	8.0M			16		.50	15m	4.0u	6.0Ø	1.0mØ	70				11p	A	TO1	
20#	2SA139†	80m	8.0M	1.3m	#J	30		10	50m	5.0u	1.0Ø	50mØ	70 †				10p	AΔ	TO1	
21#	2SA141	80m	8.0M	1.3m	#J	15	15 Ø	1.5	15m	5.0uØ	6.0Ø	1.0m	70				12p	A	TO1	A
22#	2SA142	80m	8.0M	1.3m	#J	15	15 Ø	1.5	15m	5.0uØ	6.0Ø	1.0m	70				12p	A	TO1	A
23#	2SA142A	80m	8.0M	1.3m	#J	35	35 Ø	1.5	15m	5.0uØ	6.0Ø	1.0m	70				11p	A	TO1	A
24#	2SB389	80m	8.0M	1.3m	#J	12		.50	10m	6.0u	4.0Ø	.50m	100	25u	8.0k	1.5		AØ	TO1	
25	2N140	80m	10.M		ØA	16	9.0	.50	15m	10u	9.0Ø	.60mØ	75 Δ				9.5p	AΔ	TO40	A
26	2N219	80m	10.M		ØA	16	9.0	.50	15m	10u	9.0Ø	.60mØ	75 Δ				9.5p	AΔ	TO44	A
27#	2SA30	80m	10.M	1.3m	#J	12		.50	10m	10u	6.0Ø	1.0m	75	32.u	2.5k	4.2	10p	A	TO1	
28#	2SA35	80m	10.M	1.3m	#J	16		.50	15m	6.0uØ	6.0Ø	1.0m	75 *	32.u	2.5k	4.2	10p	A	TO1	
29#	2SA136	80m	10.M	1.3m	#J	6.0		.50	10m	10u	3.0Ø	1.0m	75	45.u	2.4k	5.6	13p	A	TO1	
30#	2SA188	80m	10.M	1.3m	#J	12		.50	15m	10u	6.0	1.0m	65				10p	A	TO1	
31#	2SA371†	80m	10.M	1.3m	#J	20	15	12	15m	6.0uØ	1.5Ø	10mØ	70 †				10p	A	TO1	A
32#	2SA385	80m	10M	1.6m	ØJ	16		10	10m	12uØ	6.0Ø	1.0m	120				8.0p	A	TO1	
33#	2SA15	80m	12.M			16		.50	15m	6.0u	6.0Ø	1.0mØ	60				10p	A	TO1	
34#	2SA64†	80m	15.M	1.3m	#J	16	12 §	9.0	40m	6.0uØ	6.0Ø	1.0m	65 *	44u	2.1k	3.9	10p	A	TO1	
35#	2SA138†	80m	15.M	1.3m	#J	20	15	10	25m	5.0u	1.0Ø	10mØ	70 †				10p	AΔ	TO1	
36#	2SA143	80m	15.M	1.3m	#J	15	15 Ø	1.5	15m	5.0uØ	6.0Ø	1.0m	70				12p	A	TO1	A
37	2N411	80m	16M§	1.5m	ØA	13		.50	15m	10u	9.0Ø	600u	75				9.5p	A	TO40	A
38	2N412	80m	16M§	1.5m	ØA	13		.50	15m	10u	9.0Ø	600u	75				9.5p	A	TO1	A
39#	OC43	80m	18M§	1.6m	ØJ	15	15	12	50m	10u	0.0	50m	100 †					AΔ	R8	
40#	2SA111	80m	20.M		#S	20			10m	20uØ	9.0	1.0mØ	40				1.7p	D	TO44	
41#	2SA112	80m	20.M		#S	20			10m	20uØ	9.0	1.0mØ	45				1.7p	D	TO44	
42#	2SA272	80m	20.M	1.3m	#J	9.0		.50	10m	10uØ	6.0Ø	1.0mØ	45				3.0p	DØ	TO1	
43#	2SA17H†	80m	21.M	1.4m	#J	16	10	12	15m		6.0Ø	1.0m	120				10p	A	TO1	A
44#	2SA18H†	80m	21.M	1.4m	#J	21	12	16	15m		6.0Ø	1.0m	140				10p	A	TO1	A
45	2N274	80m	30M	1.8m	ØA	35		.50	10m	8.0uØ	12Ø	1.0m	60				1.7p	A	TO44	A
46#	2SA43	80m	30.M		#S	35			10m	16uØ	9.0	1.0mØ	60				1.7p	D	TO44	
47#	2SA109	80m	30.M		#S	20			10m	20uØ	9.0	1.0mØ	60				1.7p	D	TO44	
48#	2SA110	80m	30.M		#S	20			10m	20uØ	9.0	1.0mØ	60				1.7p	D	TO44	
49#	2SA269	80m	30.M	1.3m	#J	20		.50	10m	10uØ	6.0Ø	1.0m	45				2.2p	DØ	TO1	
50#	2SA271	80m	30.M	1.3m	#J	9.0		.50	10m	10uØ	6.0Ø	1.0m	60				3.0p	DØ	TO1	
51#	2SA274	80m	30.M	1.3m	#J	34		1.0	10m	7.0uØ	6.0Ø	1.0mØ	40				2.0p	D	TO1	
52#	2SA353A	80m	30.M			50		1.0	10m	50u	9.0Ø	1.0mØ	70				2.5p	D	TO1	
53#	2SA354	80m	30.M			25		.50	10m	10u	9.0Ø	1.0m	70				2.5p	D	TO1	
54#	2SA354A	80m	30.M			50		1.0	10m	50u	9.0Ø	1.0mØ	70				2.5p	D	TO1	
55#	2SA355	80m	30.M			25		.50	10m	10u	9.0Ø	1.0m	90				2.5p	D	TO1	
56#	2SA355A	80m	30.M			50		1.0	10m	.50u	9.0Ø	1.0mØ	90				2.5p	D	TO1	
57	40262	80m	30.M§	1.3m	#J	50		.50	10m	12uØ	6.0Ø	1.0mØ	150				3.4p$	DA	TO1	A
58	40488	80m	30.M§	1.3m	#A	12		.50	10m	12uØ	6.0Ø	1.0mØ	80				3.7p$	D	TO1	A
59	40489	80m	30.M§	1.3m	#A	50		.50	10m	12uØ	6.0Ø	1.0mØ	180				3.4p$	D	TO1	A
60	2N1524	80m	33.M	2.5m	#S	24		.50	10m	16uØ	6.0Ø	1.0m	17 Δ				3.6p		TO1	A
61	2N1525	80m	33.M	2.5m	#S	24		.50	10m	16uØ	6.0Ø	1.0m	17 Δ				3.6p		TO40	AØ
62	2N1526	80m	33.M	2.5m	#S	24		.50	10m	16uØ	5.7Ø	1.0m	27 Δ						TO1	A
63	2N1527	80m	33.M	2.5m	#S	24		.50	10m	16uØ	5.7Ø	1.0m	27 Δ						TO40	AØ
64#	2SA268	80m	40.M	1.3m	#J	20		.50	10m	10uØ	6.0Ø	1.0m	45				2.2p	DØ	TO1	
65#	2SA273	80m	40.M	1.3m	#J	34		1.0	10m	7.0uØ	6.0Ø	1.0mØ	45				2.0p	DØ	TO1	
66#	2SA350	80m	40.M			20		.50	10m	10u	9.0	1.0m	40				2.5p	D	TO1	
67#	2SA351	80m	40.M			20		.50	10m	10u	9.0Ø	1.0mØ	70				2.5p	D	TO1	
68#	2SA352	80m	40.M			20		.50	10m	10u	9.0Ø	1.0mØ	75				2.5p	D	TO1	
69#	2SA353	80m	40.M			25		.50	10m	10u	9.0Ø	1.0mØ	70				2.5p	D	TO1	
70	40261	80m	40.M§	1.3m	#J	50		.50	10m	12uØ	6.0Ø	1.0mØ	80				3.7p$	DA	TO1	A
71	40487	80m	40.M§	1.3m	#A	50		1.5	10m	12uØ	6.0Ø	1.0mØ	150				3.7p$	D	TO1	A
72#	2SA108	80m	45.M		#S	20			10m	20uØ	9.0	1.0mØ	70				1.7p	D	TO44	
73#	2SA275	80m	45.M	1.3m	#J	34		1.0	10m	5.0uØ	6.0Ø	1.0mØ	60				2.0p	DØ	TO1	
74#	2SA350H	80m	45.M			30	30 Ø	30	10m	5.0u	9.0	1.0m	12				2.5p	D	TO1	
75#	2SA267	80m	50.M	1.3m	#J	20		.50	10m	10uØ	6.0Ø	1.0m	60				2.2p	DØ	TO1	
76#	2SA270	80m	50.M	1.3m	#J	9.0		.50	10m	10uØ	6.0Ø	1.0m	75				3.0p	DØ	TO1	
77#	2SA266	80m	60.M	1.3m	#J	20		.50	10m	10uØ	6.0Ø	1.0m	75				2.2p	DØ	TO1	
78#	2SA400	80m	70.M	1.3m	#J	20		.50	10m	10uØ	6.0Ø	1.0m	70				2.3p	D	TO1	
79#	OC170	80m	75MØ	1.6m	ØJ	20	20	.50	10m	8.0uØ	6.0Ø	1.0m	150				5.0p	ADØ	TO7	
80#	OC171	80m	75MØ	1.6m	ØJ	20	20	.50	10m	8.0uØ	6.0Ø	1.0m	150				2.5p	ADØ	TO7	
81	2N1180	80m	100M		#	30		.50	10m	12uØ	12Ø	1.0mØ	80				2.0p	D	TO45	H
82#	2SA234	80m	120M			20		.50	10m	30u	6.0Ø	1.0mØ	70				2.1p	ME	TO44	
83#	2SA235H	80m	125M			20		.50	10m	15u	6.0Ø	1.0m	30 Δ				2.1p	ME	TO44	
84#	AF143	80m	130M	1.0m	#J	30	30	1.0	10m	8.0uØ	6.0Ø	1.5m	85				2.4p	D	TO7	
85#	AF144	80m	130M	1.0m	#J	30	30	1.0	10m	8.0uØ	6.0Ø	1.5m	85				2.4p	D	TO7	
86#	AF165	80m	130M	1.3m	#J	30	30 Ø	1.0	10m	8.0uØ	6.0Ø	1.5mØ	85				3.1p	D	TO44	
87#	AF166	80m	130M	1.3m	#J	30	30 Ø	1.0	10m	8.0uØ	6.0Ø	1.5mØ	85				3.1p	D	TO44	
88#	2SA235	80m	135M			20		.50	10m	30u	6.0Ø	1.0mØ	90				2.1p	ME	TO44	
89	2N1177	80m	140M		#	30		1.0	10m	12uØ	12Ø	1.0mØ	100				2.0p	D	TO45	H
90	2N1178	80m	140M		#	30		1.0	10m	12uØ	12Ø	1.0mØ	40				2.0p	D	TO45	H
91	2N1179	80m	140M		#	30		1.0	10m	12uØ	12Ø	1.0mØ	80				2.0p	D	TO45	H
92#	NKT603F†	80m	140M	1.6m	ØJ	40	40 §	1.0	50m	5.0uØ	4.5Ø	1.0mØ	100				3.5pØ		TO7	H
93#	NKT613F	80m	140M	1.6m	ØJ	40	40 §	.50	10m	5.0uØ	4.5Ø	1.0mØ	40 Δ				2.0pØ		TO7	H
94#	NKT674F	80m	140M	1.6m	ØJ	20	20 §	.50	10m	8.0uØ	4.5Ø	1.0mØ	60 Δ				3.0pØ		TO7	H
95#	NKT677F	80m	140M	1.6m	ØJ	20	20 §	.50	10m	8.0uØ	4.5Ø	1.0mØ	60 Δ				3.0pØ		TO7	H
96#	AF142	80m	150M	1.0m	#J	30	30	1.0	10m	8.0uØ	6.0Ø	1.5m	85				2.4p	D	TO7	
97#	AF164	80m	150M	1.3m	#J	30	30 Ø	1.0	10m	8.0uØ	6.0Ø	1.5mØ	85				3.1p	D	TO44	
98	2N3399	80m	400M§Δ	1.1m	#S	20		.30	7.0m	8.0u	12Ø	1.5mØ	10 †Δ				2pØ	ME	TO72	G
99#	2SA434	80m	400M			20		.50	10m	30u	6.0	3.0m	10 Δ				1.4p	ME	TO7	
100#	2SA435	80m	400M			20		.50	10m	30u	6.0	3.0m	10 Δ				1.4p	ME	TO18	
101#	2SB335	83m	1.0M	1.6m	ØJ	20		10	60m	10uØ	6.0Ø	1.0m	70					A	R18	
102#	2SB336	83m	1.0M	1.6m	ØJ	20	20 Ø	10	60m	10uØ	1.0Ø	60m	80 †					A	R18	
103#	OC41N	83m	3.0M§Δ	1.6m	ØJ	16	15	12	50m	10u	0.0	50mØ	20 †Δ					AΔ	TO1	A
104#	OC45N	83m	3.0M§Δ	1.6m	ØJ	15	15 §	12	5.0m	10u	6.0	1.0mØ	25 Δ					A	TO1	A
105	OC46	83m	3.0M		ØJ	20	20	15	125m	3.0u	5.0	3.0m	80					AΔ	R9	
106#	OC42N	83m	5.5M§Δ	1.6m	ØJ	16	15	15	50m	10u	0.0	50mØ	40 †Δ					AΔ	TO1	A
107	OC47	83m	5.5M		ØJ	20	20	15	125m	3.0u	5.0	15m	200					AΔ	R9	
108#	2SA145	83m	6.0M	1.6m	ØJ	15		12	10m	12uØ	6.0	1.0m	50				12p	A	TO1	
109#	OC45	83m	6.0M	1.6m	ØJ	15	15 Ø	12	10m	10u	6.0	1.0m	50				10p	A	R9	
110#	OC44N	83m	7.5M§Δ	1.6m	ØJ	15	15 §	12	5.0m	10u	6.0	1.0mØ	45 Δ					A	TO1	A

SYMBOLS AND CODES
EXPLAINED IN INTERPRETER

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	[3] TYPE No.	[1] MAX. COLL. DISS. @25°C (W)	[2] fab (Hz)	DERATE IN FREE AIR W/°C	T M A X	E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O A D E
1#	2SA144	83m	12.M	1.7mØ	J		15		12	10m	12uØ	6.0	1.0m	100				11p	A	TO1		
2#	OC43N	83m	12.M§Δ	1.7mØ	J		15	15	12	50m	10u	0.0	50mØ	50 †Δ					AΔ	TO1		A
3	OC44	83m	15.M	1.7mØ	J		15		12	10m	10u	2.0	1.0m	100						R9		
4#	ASZ20	83m	100M§	1.7mØ	J		40	40	.50	25m	4.5uØ	6.0Ø	1.0mØ	45 Δ				2.5p	ADΔ	TO7		
5#	AFZ11	83m	140M§	1.7mØ	J		20	20 #	.50	10m	50u	6.0Ø	1.0mØ	70				2.0p	ADØ	TO72		G
6#	2SA343	83m	150M	1.7mØ	J		20		.40	5.0m	12uØ	6.0Ø	1.0m	100				1.5p	AD	TO7		
7#	AFZ12	83m	180M§	1.7mØ	J		20	20	.50	10m	50uØ	6.0Ø	1.0mØ	70	220u			2.0p	ADØ	TO72		G
8	2N130	85m	700k	2.0m	J		25	22 §	12	10m	12u	6.0	1.0m	24				40p	A	TO5		A
9	2N131	85m	800k	2.0m	J		25	15 §	12	10m	12u	6.0	1.0m	50				40p	A	TO5		A
10	2N133	85m	800k	2.0m	J		25	15 §	12	10m	12u	6.0	1.0m	50				40p	A	TO5		A
11	2N132	85m	1.0M	2.0m	J		25	12 §	12	10m	12u	6.0	1.0m	90				40p	A	TO5		A
12	2N207	85m	2.0M	1.2m	J		12	12	12	20m	15u	5.0	1.0m	100	400n	33		40p	A	TO5		A
13	2N207A	85m	2.0M	1.2m	J		12	12	12	20m	10u	5.0	1.0m	100	400n	33		40p	A	TO5		A
14	2N207B	85m	2.0M	1.2m	J		12	12	12	20m	10u	5.0	1.0m	100	400n	33		40p	A	TO5		A
15	2N535	85m	2.0M	833u	J		20	20	20	20m	12uØ	5.0	1.0m	100	400n	33		40p	A	TO23		F
16	2N535A	85m	2.0M	833u	J		20	20	20	20m	12uØ	5.0	1.0m	100	400n	33		40p	A	TO23		F
17	2N535B	85m	2.0M	833u	J		20	20	20	20m	12uØ	5.0	1.0m	100	400n	33		40p	A	TO23		F
18	2N536	85m	2.0M	833u	J		20	20	20	20m	12uØ	1.0Ø	30mØ	150				25p	A	TO23		F
19	JAN2N987	86m	100M§	1.3m	#J		40	40 §	1.0	10m	8.0uØ	6.0	1.0m	100	25u	770	615	14p	AD	TO72		
20#	AF186G	90m		2.0m	ØJ		25	25	.30	15m	3.5u							1.9pØ	ADØ	TO12		
21#	AF186W	90m		2.0m	ØJ		25	25	.30	15m	3.5u							1.9pØ	ADØ	TO12		
22	GT1604	90m	.50M	1.8m	#S		10				6.0u	5.0Ø	1.0m	15				16p		TO9		
23#	AC170	90m	1.2M	2.0m	#J		32	15	10	100m	10uØ	6.0Ø	2.0mØ	125	65u	2.5k	5.5	21p	A	R60		
24#	AC171	90m	1.2M	2.0m	#J		32	15	10	100m	10uØ	6.0Ø	2.0mØ	200	83u	4.0k	6.0	21p	A	R60		
25	GT1605	90m	6.5M	1.8m	#S		15		1.0		25u	9.0Ø	1.0m	30 Δ	3.0uØ			18pØ	A	TO9		
26	GT1606	90m	10.M	1.8m	#S		15		1.0		25u	9.0Ø	.60m	50 Δ	3.0uØ			18pØ	A	TO9		
27#	AF256	90m*	330M§Ø	2.0m	#J		25	18	.30	10m	8.0uØ	12Ø	1.0mØ	10 †Δ				.5pt	PL	MM12		
28#	2SA447	90m	650M§	3.3m	§J		25	25	.30	15m		10Ø	2.0m	80				1.6p	A	TO12		
29#	AF253	90m*	700M§Ø	2.0m	#J		20	15	.30	10m	5.0uØ	12Ø	2.0mØ	10 †Δ				.4pt	PL	MM12		
30#	AF252	90m*	750M§Ø	2.0m	#J		20	15	.30	10m	5.0uØ	12Ø	2.0mØ	10 †Δ				.4pt	PL	MM12		A
31#	AF251	90m*	800M§Ø	2.0m	#J		20	15	.30	10m	5.0uØ	12Ø	2.0mØ	10 †Δ				.4pt	PL	MM12		A
32#	ASZ21	94m	300M§Δ	2.0m	ØJ		20	15		30m		.50	10mØ	30 †Δ					ADΔ	TO18		
33	2N987	100m		1.5m	#S		40	40	1.0	10m	8.0uØ	6.0Ø	1.0m	40 Δ				4pØ		TO72		G
34	2N2496	100m		1.6m	#S		40	40 Ø		10m	6.0uØ	6.0Ø	1.0mØ	25 †Δ				2.0pØ	Ø	TO72		J
35	2N2671	100m		2.0m	ØS		25		1.0	10m	8.0uØ	6.0Ø	1.0mØ	40 †Δ				2.5pØ		TO12		GØ
36	2N2672	100m		2.0m	#S		25		1.0	10m	8.0uØ	6.0Ø	1.0mØ	40 †Δ				2.5pØ		TO39		A
37#	AF186	100m		2.0m	ØJ		25			15m				20 †Δ				1.8p	AD	R96		
38	GT758	100m	500k	2.0m	#S		20		15	200m	25u	4.5	1.0m	15	700nb	30	3.0	14p	AΔ	TO5		
39	2N63	100m	.60M	1.7m	#J			22 Ø	12	10m	20u	6.0	1.0m	22			25		F	OV3		
40	2N130A	100m	.70M	1.7m	#J			44 Ø	12	100m	15u	6.0	1.0m	26	17u	900	.35		A	OV16		A
41	2N64	100m	.80M	1.7m	#J			15 Ø	12	10m	20u	6.0	1.0m	45					F	OV3		
42	2N106	100m	.80M	1.7m	#J		15			10m		1.5	.50m	45				36p	FØ	OV4		
43	2N131A	100m	.80M	1.7m	#J			30 Ø	12	100m	15u	6.0	1.0m	45	18u	1.4k	.43		A	OV16		A
44	2N133A	100m	.80M	1.7m	#J			30 Ø	12	100m	15u	6.0	1.0m	50	19u	2.5k	.55		A	OV16		A
45	2N186	100m	.80M	3.0m	#S		25		.50	200m	16u	5.0	1.0m	24		1.2k		40p	A	R32		
46#	2SB134	100m	.80M	1.7m	#J		30	30 Ø	15	50m	10uØ	1.5Ø	.50m	70	19u	3.2k	5.3		AØ	TO1		A
47#	2SB135	100m	.80M	1.7m	#J		30	30 Ø	15	50m	10uØ	6.0Ø	1.0m	70	21u	2.1k	3.2		A	TO1		A
48#	2SB135A	100m	.80M	1.7m	#J		110	110 Ø	12	50m	10uØ	1.0Ø	10m	50 †					A	TO1		A
49	2N132A	100m	1.0M	1.7m	#J			24 Ø	12	100m	15u	6.0	1.0m	90	20u	30k	.56		A	OV16		A
50	2N187	100m	1.0M	3.0m	#S		25		5.0	200m	16u	5.0	1.0m	36		2.0k		40p	A	R32		
51	2N1265	100m	1.0MΔ	1.7m	#J		20	10	10	100m	10uØ	6.0Ø	1.0mØ	50 Δ				25pØ		TO5		A
52#	2SB57	100m	1.0M	2.2m	ØJ		30		10	100m	15u	6.0	1.0m	65	300nb	30	3.0		AΔ	R55		
53#	2SB400	100m	1.0M		#J		20			40m	15uØ	6.0Ø	1.0mØ	100	35u	3.0k	8.0		AØ	TO1		
54	2N188	100m	1.2M	3.0m	#S		25		5.0	200m	16u	5.0	1.0m	54		2.6k		40p		R32		
55	2N241	100m	1.3M		#		25			200m	16u	1.0	100m	73						R32		
56#	2SB443A	100m	2.5M	1.7m	#J		18	18 Ø	12	10m	10uØ	6.0Ø	1.0m	110	43u	3.0k	6.5		AØ	TO1		A
57#	2SB444A	100m	2.5M	1.7m	#J		18	18 Ø	12	10m	7.0uØ	6.0Ø	1.0m	120	50u	3.3k	6.8		AØ	TO1		A
58#	2SB443B	100m	3.5M	1.7m	#J		18	18 Ø	12	10m	10uØ	6.0Ø	1.0m	190	63u	4.8k	8.3		AØ	TO1		A
59#	2SB444B	100m	3.5M	1.7m	#J		18	18 Ø	12	10m	7.0uØ	6.0Ø	1.0m	200	68u	5.2k	8.7		AØ	TO1		A
60	2N135	100m	4.5M	1.7m	#J		20			50m	5.0u	5.0	1.0m	20				14p	A	R31		
61#	2SA203	100m	5.0M		ØJ		15		5.0	15m	10uØ	6.0Ø	1.0m	30				11p	A	TO1		
62	AF202	100m*	5.0M§	2.2m	#J		25		.30	30m	.40uØ	10Ø	3.0mØ	85					ME	R96		
63	AF202S	100m*	5.0M§	2.2m	#J		32		.30	30m	.40uØ	10Ø	3.0mØ	85					ME	R96		
64#	2SA33	100m	6.0M	2.2m	ØJ		20		10	25m	5.0u	6.0	1.0m	65	400nb	29		12p	A	R55		
65	2N136	100m	6.5M	1.7m	#J		20			50m	5.0u	5.0	1.0m	40				14p	A	R31		
66#	2SA201	100m	8.0M		ØJ		15		5.0	15m	10uØ	6.0Ø	1.0m	50				11p	A	TO1		
67	2N137	100m	10.M	1.7m	#J		10			50m	5.0u	5.0	1.0m	60				14p	A	R31		
68#	2SA32†	100m	10M	2.2m	ØJ		20		10	50m	5.0u	6.0	1.0m	65	400nb	29	20	12p	AΔ	R55		
69#	2SA202	100m	12.M		ØJ		15		5.0	15m	10uØ	6.0Ø	1.0m	55				11p	A	TO1		
70	2N1429	100m	16M§Δ	947u	§J		6.0	6.0		50m	10u	3.0Ø	1.0mØ	25 Δ				14pØ	A	TO5		A
71	GT1607	100m	18.M	1.7m	#S		10				25u	5.0Ø	1.0m	60 Δ				14p	A	TO9		
72#	AFY15	100m	20.M		#		22	12	8.0	50m	10u	6.0Ø	.50mØ	80				10p	A	R60		
73#	2SA228	100m	30.M		ØJ		80		.50	10m	50u	6.0	1.0m	70				20p	D	TO17		
74#	2N2090	100m	44M§Δ	1.7m	#S		20	20	1.0	11m	8.0uØ	6.0Ø	1.0m	40 Δ				4pØ		TO7		H
75#	2N2091	100m	44M§Δ	1.7m	#S		20	20	1.0	11m	8.0uØ	6.0Ø	1.0m	40 Δ					Ø	TO7		H
76#	2SA427	100m	45.M		ØJ		20			15m	15uØ	6.0Ø	1.0mØ	60				5pØ	D	TO44		
77#	2SA428	100m	50.M		ØJ		20			15m	15uØ	6.0Ø	1.0mØ	80				5pØ	D	TO44		
78#	2SA69	100m	70M	2.0m	ØJ		20		.50	10m	13uØ	6.0Ø	1.0m	150				4.0p	AD	TO7		
79#	2SA70	100m	70M	2.0m	ØJ		20		.50	10m	13uØ	6.0Ø	1.0m	150				3.5p	AD	TO7		
80	2N2089	100m	75M§	1.6m	ØJ		32	32	1.0	10m	8.0u	6.0	1.0m	150	300ub	60	300	2.5	AD	TO7		H
81	2N2092	100m	75M§	1.6m	ØJ		32	32	1.0	10m	8.0u	6.0Ø	1.0mØ	150	1.0u	4.0k	160	4.0p	ADØ	TO7		A
82#	2SA71	100m	100M	2.0m	ØJ		20		.50	10m	13uØ	6.0	1.0m	150				2.5p	AD	TO7		
83#	ASY67	100m	150M§Δ	3.3m	ØJ		50	50		50m	10uØ	6.0Ø	10mØ	50 †Δ				3.0p	ADΔ	TO12		
84#	2SA246	100m	155M				30		.50	30m	30u	6.0Ø	5.0m	70				2.5p	ME	TO44		
85	2N2273	100m	200M§Δ	1.3m	#J		25	15	1.0	100m	100u	10Ø	1.0m	20 †Δ				3.5p	ME	TO18		AØ
86	2N3588	100m	200M§Δ	1.7m	#S		25		.65	10m	5.0uØ	6.0Ø	1.0mØ	20 †Δ						R96		
87	TI363	100m	200M	2.5m	#J		30	30	2.0	50m	3.0uØ	6.0Ø	500u	35 †Δ	329u	3.4k	192	2.5 Ø	ME	TO58		
88	TI364	100m	200M	2.5m	#J		30	30	2.0	50m	5.0uØ	6.0Ø	500u	20 †Δ	287u	2.8k	159	2.5 Ø	ME	TO58		
89	2N976†	100m	250M§Δ	1.3m	#S		15	10	2.0	100m	3.0uØ	.50Ø	20mØ	30 †Δ				.3pØ		TO18		A
90	JAN2N2273	100m	250M§Δ	1.3m	#S		25	25 Ø	1.0		10uØ	10Ø	1.0uØ	20 †Δ				4.0pØ		TO18		AØ
91	2N2654	100m	250M§	2.5m	#J		32	32 Ø	.50	10m	8.0uØ	6.0	1.0m	50 †				1.5p	AD	TO12		A
92	2N3283	100m	250M§Δ	1.3m	#J		25	25 Ø	.50	50m	10uØ	10Ø	3.0mØ	10 Δ				1.5pØ	Ø	R96d		G
93	2N3284	100m	250M§Δ	1.3m	#J		25	25 Ø	.50	50m	10uØ	10Ø	3.0mØ	10 Δ				1.5pØ	Ø	R96d		G
94	2N3285	100m	250M§Δ	1.3m	#J		20	20 Ø	.50	50m	10uØ	10Ø	3.0mØ	5.0 Δ				2pØ		TO72		GØ
95	2N3286	100m	250M§Δ	1.3m	#J		20	20 Ø	.50	50m	10uØ	10Ø	3.0mØ	5.0 Δ				2pØ		TO72		GØ
96#	SFT171	100m	250M§	1.7m	#J		30	20		25m	10uØ	9.0Ø	1.5mØ	3.5 †Δ				2.5pØ	ME	TO33		
97#	SFT172	100m	250M§	1.7m	#J		30	20		25m	10uØ	9.0Ø	1.5mØ	3.5 †Δ				2.5pØ	ME	TO33		
98#	SFT173	100m	250M§	1.7m	#J		30	20		25m	10uØ	9.0Ø	1.5mØ	7.0 †Δ				2.5pØ	ME	TO33		
99#	SFT174	100m	250M§	1.7m	#J		30	20		25m	10uØ	9.0Ø	1.5mØ	3.5 †Δ				2.5pØ	ME	TO33		
100#	2G101	100m	320M§	1.7m	#J		15	15	1.0	20m	10u	5.0Ø	2.0m	20				3.5p	MEØ	TO5		
101	2N2717	100m	390M	22m	ØJ		25	25		15m	8.0uØ	10Ø	3.0m	30 †Δ				1.8p	Δ	TO18		A
102#	AF121	100m	390M	2.2m	ØJ		25	25		15m	8.0uØ	10Ø	3.0m	30 †Δ				1.8p	AD	TO18		
103#	2G102	100m	400M§	1.7m	#J		15	15	1.0	20m	10u	5.0	2.0m	20				3.5p	ME	TO5		
104	2N3127	100m	400M§Δ	1.3m	#S		25	20	.75	50m	5.0uØ	10Ø	3.0mØ	125 Ø				1.2pØ	Ø	TO72		G
105	JAN2N3127	100m	400M§Δ	1.3m	#J		25	20	.75	50m	5.0uØ	10Ø	3.0uØ	20 Δ				1.2pØ	Ø	TO72		G
106#	2SA413†	100m	500M§		ØJ		20	15	2.5	30m	5.0uØ	1.0Ø	30mØ	70 †					AD	TO18		
107	2N3281	100m	550M§Δ	1.3m	#J		30	15	.50	50m	5.0uØ	10Ø	3.0mØ	10 Δ				1.2pØ	Ø	R96d		G
108	2N3282	100m	550M§Δ	1.3m	#J		30	15	.50	50m	5.0uØ	10Ø	3.0mØ	10 Δ				1.2pØ	Ø	R96d		G
109	2N3279	100m	600M§Δ	1.3m	#J		30	20	1.0	50m	5.0uØ	10Ø	3.0mØ	10 Δ				1pØ	Ø	R96d		G
110	2N3280	100m	600M§Δ	1.3m	#J		30	20	1.0	50m	5.0uØ	10Ø	3.0mØ	10 Δ				1pØ	Ø	R96d		G

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC-TURE	DWG. No.	L C E O A D D E
1#	AF121S	105m*	270M§	2.3m	#J	32	32 §		10m	8.0uØ							.45p†		R90	J
2#	ASZ20N	110m	40M§Δ	1.6m	ØJ	40	15		25m	50u	6.0Ø	1.0mØ	45 Δ					AD	TO44	C
3#	AFY16	112m*	550M§	1.3m	ØJ	30	25	.50	10m	3.0u	12Ø	1.5mØ	40 †					ME Ø	TO72	
4	AFY37	112m	600M§	1.3m	#J	32	32 Ø	.30	20m	.40uØ								E	TO72	
5	JAN2N384	120m		1.6m	#J	40	20	.50	10m	50u	12	1.5u	20 Δ				3.0pØ		TO44	G
6	2N1450	120m		2.0m	#S	30		1.0	100m	100u	1.0Ø	10m	20 †Δ					D Δ	TO9	A
7	JAN2N1450M†	120m		1.5m	#S	30	20	1.0		10uØ	1.0Ø	10mØ	20 †Δ						R81a	
8#	2SB459	120m				30	18 §	2.5	50m	12u	6.0Ø	1.0m	180	78u	5.2k	1.1		A	TO1	
9#	2SB460	120m				40	25 §	2.5	50m	6.0u	6.0Ø	1.0m	180	78u	5.2k	1.1		A	TO1	
10	TR34	120m	1.6MΔ	2.0m	#J	40		10	150m	20u	6.0	1.0m	15				15p		TO5	
11#	GET896	120m	1.7M§Δ	2.0m	#J	20	15		100m	5.0uØ	1.0Ø	25mØ	42 †					A	TO5	A
12#	GET897	120m	1.7M§Δ	2.0m	#J	20	15		100m	5.0uØ	1.0Ø	25mØ	65 †					A	TO5	A
13#	GET898	120m	1.7M§Δ	2.0m	#J	20	15		100m	5.0uØ	1.0Ø	25mØ	110 †					A	TO5	A
14#	2SA208†	120m	3.0M	2.0m	#J	20		12	400m	20u	.30	200m	15 Δ†				25p		TO5	
15	2N269	120m	4.0MΔ	2.8m	ØA	20	20	9.0	100m	20u	.30	20mØ	40				20p	A Δ	TO1	A
16	2N2613	120m	4.0MΔ	2.6m	#J	30	25 §	25	50m	5.0uØ	4.0Ø	.50mØ	120 Δ	45u	6.8k	26		A	TO1	A
17	2N2614	120m	4.0MΔ	2.6m	#J	40	35 §	25	50m	5.0uØ	6.0Ø	1.0mØ	100 Δ	60u	4.3k	14	12pØ	A	TO1	A
18#	2SA212†	120m	4.0M	2.0m	#J	25		15	100m	20u	.30	100m	30 Δ†				20p		TO5	
19	2N578†	120m	5.0M		ØA	20		12	400m	20u	.30Ø	400mØ	15 †					A	TO5	A
20#	2SA209†	120m	5.0M	2.0m	#J	20		12	400m	20u	.30	200m	30 Δ†				25p		TO5	
21	2N1319	120m	6.0M		#	20		20	400m	6.0u	.30	400m	30 †				20p		TO5	
22#	GET880	120m	6.5M§	2.0m	#J	20	15		100m	5.0uØ	6.0Ø	1.0mØ	110 Ø	300nb	28	4.0		AØ	TO5	A
23#	GET881	120m	6.5M§	2.0m	#J	20	15	12	500m	5.0uØ	.25Ø	5.0mØ	150 †					A	TO5	A
24#	GET887	120m	6.5M§	2.0m	#J	20	15		100m	5.0uØ	6.0Ø	1.0mØ	110 Ø					A	TO5	A
25#	GET891	120m	6.5M§	2.0m	#J	25	20	12	500m	5.0uØ	.25Ø	5.0mØ	150 †					A	TO5	A
26#	2SB482	120m	7.0M§	2.0m	#J	35	25 §	12	50m	6.0uØ							6.5p	A	TO1	A
27#	2SB486	120m	7.0M§	2.0m	#J	25	20 §	12	50m	6.0uØ	6.0Ø	1.0m	200	56u	6.5k	9.0	6.5p	AØ	TO1	A
28#	GET889	120m	7.5M§	2.0m	#J	20	15		100m	5.0uØ	6.0Ø	1.0mØ	110 Ø	300nb	28	4.0		AØ	TO5	A
29	2N579†	120m	8.0M		ØA	20		12	400m	20u	.30Ø	400mØ	30 †					A	TO5	A
30	2N583†	120m	8.0M		#A	18		10	100m	20u	.30Ø	20mØ	30 †				12p	A	TO1	A
31	2SA538	120m	8.0M	2.3m	ØJ	25		12	50m	50u	6.0Ø	1.0m	70				20pØ	A	TO1	
32♦	2N1670	120m	10MΔ	2.0m	#J	100		3.0		7.0uØ	.50	10mØ	15 †Δ				5.0p		TO9	F
33	2N2953	120m	10.M	385u	#J	30	25 §	25	150m	5.0u	10Ø	10mØ	200 Δ					A	TO1	A
34#	2SA210†	120m	10.M	2.0m	#J	20		12	400m	5.0u	.30	200m	45 Δ†				25p		TO5	
35	40263	120m#	10M	2.6m	#J	20	18 §	2.5	50m	12u	6.0Ø	1.0mØ	160					A	TO1	A
36	40359	120m#	10.M	2.7m	#A	20	18 §	2.5	50m	12uØ	6.0Ø	1.0mØ	100					A	TO1	A
37	40395	120m#	10M	2.6m	#J	20	18 §	20	50m	12u	6.0Ø	1.0mØ	250 Ø						TO1	A
38	40490	120m#Ø	10.M	1.6m	#A	20	18	2.5	20m	12u	6.0Ø	1.0mØ	300					A	TO1	A
39#	GET888	120m	10.M§	2.0m	#J	20	15		100m	5.0uØ	6.0Ø	1.0mØ	220 Ø					A	TO5	A
40#	GET882	120m	12M§	2.0m	#J	20	15	12	500m	5.0uØ	.25Ø	5.0mØ	150 †					A	TO5	A
41#	GET890	120m	12M§	2.0m	#J	20	15		100m	5.0uØ	6.0Ø	1.0mØ	220 Ø	250nb	28	5.0		AØ	TO5	A
42#	GET892	120m	12M§	2.0m	#J	25	20	12	500m	5.0uØ	.25Ø	5.0mØ	150 †					A	TO5	A
43#	2SA217†	120m	14.M	2.0m	#J	25		12	100m	5.0u	.30	100m	30 Δ†				20p		TO5	
44	2N580†	120m	15.M		ØA	20		12	400m	20u	.30Ø	400mØ	45 †					A	TO5	A
45	2N584†	120m	18.M		#A	25		12	100m	20u	.20Ø	24mØ	60 †				12p	A	TO1	A
46#	GET885	120m	20.M§	2.0m	#J	20	15	12	500m	5.0uØ	.25Ø	5.0mØ	150 †					A	TO5	A
47#	GET895	120m	20.M§	2.0m	#J	25	20	12	500m	5.0uØ	.25Ø	5.0mØ	220 †					A	TO5	A
48	GT5116	120m	20M§	2.0m		15		2.0		10u	1.0Ø	40m	20 †				8.0p	D	TO9	
49	2N1678	120m	25MΔ	2.0m		60	60 Ø	4.0		25u	5.0Ø	1.0m	25	20ub			5.0p	D Δ	TO9	
50	2N1224	120m	30.M	1.6m	#A	40	40 §	.50	10m	12uØ	12Ø	1.5m	60				2.0p	D	TO12	G
51	JAN2N1224	120m	30M§Δ	1.6m	#S	40		.50	10m	20u	12Ø	1.5mØ	30 Δ				3.0pØ		TO33	GØ
52	2N1226	120m	30.M	1.6m	#A	60	60 §	.50	10m	12uØ	10Ø	1.5m	60				2.0p	D	TO33	G
53	2N1395	120m	30.M	1.6m	#A	40	40 §	.50	10m	12uØ	12Ø	1.5m	90				2.0p	D	TO33	G
54	40004	120m	30M	1.6m	ØA	40	40 §	.50	10m	15u	9.0Ø	1.0mØ	80				2.0p	D	TO44	
55#	SFT315	120m	30.M	2.0m	#J	40	40 §	.50	10m	15u	9.0Ø	1.0mØ	80				2.0p	D	TO44	A
56	2N1638	120m	40.M	2.0m	#A	34		1.0	10m	7.0uØ	12Ø	1.0m	75				2.0p	D	TO1	A
57	GT5117	120m	40.M§	2.0m		20		2.0		10u	1.0Ø	40m	20 †				8.0p	D	TO9	
58	2N1632	120m	45.M	2.0m	#A	34		1.0	10m	16uØ	12Ø	1.0m	80				2.0p	D	TO1	A
59	2N1637	120m	45.M	2.0m	#A	34		1.5	10m	5.0uØ	12Ø	1.0m	80				2.0p	D	TO1	A
60	2N1639	120m	45.M	2.0m	#A	34		1.0	10m	7.0uØ	12Ø	1.0m	75				2.0p	D	TO1	A
61	JAN2N604M†	120m	50M§Δ	1.6m		30	20	2.0		8.0uØ	1.0Ø	500uΔ	40 †Δ	2.0ubØ			5.0pØ		R81a	A
62	JAN2N1225	120m	50M§Δ	1.6m	#S	40		.50	10m	20u	12Ø	1.5mØ	30 Δ				3.0pØ		TO33	GØ
63#	SFT316	120m	70.M§	2.0m	#J	20		.50	10m	15uØ	6.0Ø	1.0mØ	120				1.8p	D	TO44	A
64#	2SA279	120m*	80M	4.0m	ØJ	30		.50	30m	6.0uØ	2.0Ø	10mØ	100 †				3.5p	AD	TO7	
65#	SFT357P	120m	80.M§	2.0m	#J	30	10	.50	10m	20u	9.0Ø	1.0mØ	180				2.0p	D	TO44	A
66#	SFT357	120m	85.M§	2.0m	#J	20		.50	10m	15uØ	6.0Ø	1.0mØ	120				1.8p	D	TO44	A
67#	SFT354	120m	87.M§	2.0m	#J	20		.50	10m	15uØ	6.0Ø	1.0mØ	120				1.8p	D	TO44	A
68	2N384	120m	100M	1.6m	#A	40	40 §	.50	10m	12uØ	12Ø	1.5m	60		400		2.0p	D	TO44	A
69	2N1225	120m	100M	1.6m	#A	40	40 §	.50	10m	12uØ	12Ø	1.5m	60				2.0p	D	TO12	G
70	2N1396	120m	100M	1.6m	ØA	40	40 §	.50	10m	12uØ	124	1.5m	90				2.0p	D	TO33	G
71#	2SA344	120m*	100M	4.0m	ØJ	30		.50	30m	6.0uØ	2.0Ø	10mØ	200				4.0p	AD	TO44	
72#	AF185	120m	110M	2.2m	#J	32	32	1.2	30m	3.0u	10	1.0m	40 †Δ				3.5p	AD	TO12	
73#	SFT358	120m	110M	2.0m	#J	20		.50	10m	15uØ	6.0Ø	1.0mØ	120				1.8p	D	TO44	A
74	2N1023	120m	120M	1.6m	#A	40	40 §	.50	10m	12uØ	12Ø	1.5m	60				2.0p	D	TO44	G
75	2N1066	120m	120M	1.6m	#A	40	40 §	.50	10m	12uØ	12Ø	1.5m	60				2.0p	D	TO33	G
76	2N1397	120m	120M	1.6m	ØA	40	40 §	.50	10m	12uØ	124	1.5m	90				2.0p	D	TO33	G
77#	SFT163	120m	120M§Δ	2.0m	#S	15		.50	10m	15u	12Ø	5.0mØ	70 Δ				3pØ	D	TO44	A
78	2N2494	125m		1.7m	#S	40	40 Ø		10m	6.0uØ	6.0Ø	1.0mØ	25 †Δ				2pØ	A Ø	TO7	H
79	2N2495	125m		1.7m	#S	40	40 Ø		10m	6.0uØ	6.0Ø	1.0mØ	25 †Δ				2pØ	Ø	TO12	G
80	2N279	125m	.30M	2.5m	#J		30		10m	12uØ	2.0Ø	.50m	30	23u	2.2k	9.0		AD Δ	R9	
81	2N280	125m	300k	2.5m	ØJ		30		10m	12uØ	20Ø	3.0mØ	47	80u	800	5.0		AD Δ	R9	
82#	2SB170	125m	300k	2.5m	ØJ	30			10m	12uØ	2.0	500u	30	15u	1.8k	4.5		A	TO1	
83	2N281	125m	350k	2.5m	ØJ	16	16	10	125m	10uØ	5.4Ø	10m	70 †					AD Δ	R8	
84	2N284	125m	350k	2.5m	ØJ		30		10m	12uØ	2.0Ø	500u	30	23u	2.2k	9.0		AD Δ	R8	
85	2N284A	125m	350k	2.5m	ØJ		30		10m	12uØ	20Ø	3.0mØ	47	80u	800	5.0		AD Δ	R8	
86#	OC76	125m	350kΔ	2.5m	ØJ	32	32 Ø	10	125m	10uØ	5.4Ø	10mØ	45 Δ					A Δ	R8	
87#	OC77	125m	350kΔ	2.5m	ØJ	60	60 Ø	10	250m	10uØ	5.4Ø	10m	45 Δ					A Δ	R8	
88#	OC70	125m	450k	2.5m	ØJ	30	30 Ø		10m	5.0u	2.0	500u	30	23u	2.3k	9.0		A	R9	
89	2N283	125m	500k	2.5m	ØJ	32		30	10m	4.5u	10Ø	500u	40					A	R8	
90#	2SB171	125m	500k	2.5m	ØJ	30			10m	12uØ	2.0	3.0u	50	75u	800	4.5		A	TO1	
91#	2SB173	125m	500k	2.5m	ØJ	20			10m	12uØ	6.0Ø	1.0u	50					AØ	TO1	
92#	OC71	125m	500k	2.5m	ØJ	30	30 Ø		10m	5.0u	2.0	3.0m	47	80u	800	5.4		A	R9	
93#	2SB175	125m	600k	2.5m	ØJ	30			10m	12uØ	2.0	3.0m	90	80u	1.3k	5.5		A	TO1	
94#	OC75	125m	750k	2.5m	ØJ	30	30 Ø		50m	5.0u	2.0	3.0m	90					A	R9	
95#	2SB177	125m	900k	2.5m	ØJ	60		10	125m	12uØ		300m	65 †					A	TO1	
96#	OC72	125m	900k	2.5m	ØJ	32		10	125m	10u	.70	80m	50 †					A	R8	
97	2N65	125m	1.0M	1.7m	#J	20		16	100m	10u	5.0	1.0m	75				35p	A	OV4	A
98#	2SB172	125m	1.0M	2.5m	ØJ	32		10	125m	12uØ	1.0Ø	100mØ	50 †					A	TO1	
99	40253	125m#	1.0M§	3.5m	#S	25	25	2.5	500m	14uØ	1.0Ø	400mØ	75 †					A	TO1	A
100#	2SB176	125m	1.4M	2.5m	ØJ	32		10	125m	12uØ	1.0Ø	100mØ	100 †					A	TO1	
101	40329	125m	1.5M	2.8m	#J	25	25 §	2.5	100m	14uØ	10Ø	10mØ	75 Δ	175u	400	3.0	35p	A	TO1	A
102	2N614	125m	3.0M		#J	20	15	10	150m	6.0u	9.0	.50m	4.5				8.0p		TO5	A
103#	ASY31	125m	4.0M§Δ	2.5m	ØJ	25	15	20	200m#	3.0uØ	0.0	20m	30 †Δ				16p$	A	R9	
104	2N615	125m	5.0M		#J	20	15	10	150m	6.0u	9.0	.50m	7.5				8.0p		TO5	A
105#	ASY32	125m	6.0M§Δ	2.5m	ØJ	25	15	20	200m#	3.0uØ	0.0	20m	50 †Δ				16p$	A	R9	
106	2N617	125m	7.5M	2.1m	#J	15		10	150m	6.0u	9.0	.50m	15				7.0p	A	TO5	A
107	2N505	125m	8.0M	2.0m	#J	40		40	250m		1.0Ø	10mØ	40				10p		TO9	A
108	2N616	125m	9.0M		#J	15	12	10		6.0u	9.0	.50m	25				7.0p		TO5	A
109#	2SA358	125m	20.MΔ	2.1m	#J	75		1.0	50m	12uØ	9.0Ø	1.0m	90				3pØ	D	X35	
110	JAN2N2084	125m	40M§Δ	1.6m	#J	40	40 §	1.0	10m	8.0uØ	6.0Ø	1.0mØ	40 Δ				4.0pØ		TO33	GØ

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	2SA479	125m	40.M	2.1m	#J	40	40 Ø	2.0	200m	8.0uØ	1.0Ø	200mØ	60 †				3.0p	D	TO1	
2	2N2188	125m	60M§Δ	2.5m	#S	40	25	2.0	30m	3.0uØ	9.0Ø	1.5mØ	40 Δ					ME	TO58	A
3	2N2190	125m	60M§Δ	2.5m	#S	60	25	2.0	30m	3.0uØ	9.0Ø	1.5mØ	40 Δ					ME	TO58	A
4	2N2084	125m	100M§	5.9m	#S	40	40 §	1.0	10m	8.0uØ	6.0Ø	1.0mØ	40 †Δ				4pØ	AD	TO33	GØ
5	2N2189	125m	102M§Δ	2.5m	#S	40	25	2.0	30m	3.0uØ	9.0Ø	1.5mØ	60 Δ					ME	TO58	A
6	2N2191	125m	102M§Δ	2.5m	#S	60	25	2.0	30m	3.0uØ	9.0Ø	1.5mØ	60 Δ					ME	TO58	A
7#	2SA401	125m	230M			30		.50	40m	30u	6.0Ø	1.0m	70				3.0p	ME	TO44	
8	MM1139	125m	550M§	1.7m	#J	30	15	.30		8.0uØ	10Ø	2.0mØ	35 †				.17p$		TO72	G
9	2N111	130m	3.0M	2.5m	#J	30		20	200m		6.0	1.0m	25				12p	F	OV4	
10	2N111A	130m	3.0M	2.5m	#J	30		20	200m		6.0	1.0m	25				12p	F	OV4	A
11	2N112	130m	5.0M	2.5m	#J	30		20	200m		6.0	1.0m	30				12p	F	OV4	
12	2N112A	130m	5.0M	2.5m	#J	30		20	200m		6.0	1.0m	30				12p	F	OV4	A
13	2N113	130m	10.M	2.5m	#J	30		20	200m		6.0	1.0m	45				12p	F	OV4	
14	2N271	130m	10.M	2.5m	#J	30		20	200m		6.0	1.0m	45				12p	F	OV4	
15	2N271A	130m	10.M	2.5m	#J	30		20	200m		6.0	1.0m	45				12p	F	OV4	
16	2N114	130m	20.M	2.5m	#J	30		20	200m		6.0	1.0m	75				12p	F	OV4	
17	2N1097	140m			#J		16		100m	16u	1.0Ø	20mØ	34 †Δ						TO5	A§
18	2N1098	140m			#J		16		100m	16u	1.0Ø	20mØ	25 †Δ						TO5	A§
19	2N1144	140m		4.0m	*J	16	16 §		100m	16u	5.0	1.0m	55				40p	A	R32	
20	2N1145	140m		4.0m	*J	16	16 §		100m	16u	5.0	1.0m	45				40p	A	R32	
21	2N3074	140m		3.1m	ØJ	25	25 §		20m	10uØ	5.0Ø	14m	14 †Δ				3.0p	AD	TO12	G
22	2N3075	140m		3.1m	ØJ	35	25 §	.50	20m	10uØ	12Ø	3.0mØ	20 †Δ		100		3.0pØ	AD	TO12	G
23#	AF181	140m	350M	3.1m	ØJ	30	30		20m	10uØ	6.0Ø	12m	27 †Δ				1.8p	AD	TO12	
24#	AFY40R	140m	600M§	2.2m	#J	20	15	.30	10m	8.0u	6.0	2.0m	55				.25p†	EMØ	R96	G
25#	AFY40	140m	700M§	2.3m	ØS	32	20	.30	20m	8.0uØ								ME	R90	A
26	2N138	150m			ØA	20			150m	20u	1.0Ø	50mØ	44					A	TO22	A
27	2N185	150m			*A	20			150m	14u	1.0Ø	50mØ	80					A	TO22	A
28	2N217	150m		1.5m	ØJ	25	25	12	70m	14u	1.0Ø	50mØ	75					AΔ	TO1	A
29	2N238	150m			*A	20			150m	20u	1.0Ø	50mØ	45 †					A	TO22	F
30	2N311	150m		2.0m	#S	15	15	6.0		60u	5.0Ø	10m	50 †	500nb				AΔ	TO5	A
31	2N407	150m		3.0m	ØJ	20	18	2.5	70m	14uØ	1.0Ø	50mØ	65					A	TO40	A
32	2N408	150m		3.0m	ØJ	20	18	2.5	70m	14uØ	1.0Ø	50mØ	65					A	TO1	A
33	2N680	150m				20			50m	14u			35						OV9	
34	JAN2N705†	150m		2.0m	#J	15	15 Ø	35		100u	.30Ø	10mØ	25 †Δ					DM	TO18	AØ
35	2N710A†	150m		2.0m	#S	15	15 Ø	2.0	50m	3.0uØ	.50Ø	10mØ	25 †Δ				8pØ		TO18	AØ
36	2N782†	150m		2.0m	#J	12	12 Ø	1.0	200m	3.0uØ	.25Ø	10mØ	20 †Δ						TO18	AØ
37	2N837†	150m		2.0m	#S	12	6.0	1.0	100m	3.0uØ	.50Ø	10mØ	30 †Δ				9pØ		TO18	AØ
38	2N1303	150m		2.5m	#J	30		25	300m	6.0uØ	1.0Ø	10m	20 †Δ				20pØ	#	TO5	A§
39	2N1305	150m		2.5m	#J	30		25	300m	6.0uØ	1.0Ø	10m	40 †Δ				20pØ	#	TO5	A§
40	2N1307	150m		2.5m	#J	30		25	300m	6.0uØ	1.0Ø	10m	60 †Δ				20pØ	#	TO5	A§
41	2N1309	150m		2.5m	#J	30		25	300m	6.0uØ	1.0Ø	10m	80 †Δ				20pØ	#	TO5	A§
42	2N1408	150m		2.0m	#S	50	50 Ø	10		7.0uØ	5.0Ø	1.0m	10 Δ	2.0ub					TO5	A
43	JAN2N1646M	150m		2.0m	#J	15	12 Ø	2.0		3.0uØ	.50Ø	10mØ	20 †Δ				5.0pØ	ME	X25	
44	2N1729†	150m		2.5m	#J	25	15 #	20	300m	6.0u	.30Ø	100mØ	30 †Δ				20pØ		TO5	A§
45	2N1853	150m		2.5m	#J	18		2.0	100m	4.2u	.40Ø	6.0mØ	30 †Δ						TO5	A
46	JAN2N1853†	150m		25m	#S	18	18 #	4.0	100m	35u†	1.0Ø	200uΔ	30 †Δ						TO5	A
47#	2SB155	150m				16		2.5	300m	14u	4.0Ø	1.0m	30					A	TO1	
48#	2SB156	150m				16		2.5	300m	14u	4.0Ø	1.0m	45					A	TO1	
49#	2SB156A	150m				20		6.0	300m		4.0Ø	1.0m	45					A	TO1	
50#	2SB185	150m			ØJ	25		25	50m	15u	1.5Ø	30m	45					A	TO1	
51#	2SB186	150m			ØJ	25		25	50m	15u	1.5Ø	30m	170					A	TO1	
52#	2SB187	150m			ØJ	25		25	50m	15u	1.5Ø	30m	100					A	TO1	
53#	2SB188	150m			ØJ	25		25	50m	15u								A	TO1	
54#	2SB350	150m				25	25 §		50m	20u	1.5Ø	30mØ	100					A	TO1	
55	GT34N	150m		2.0m	#S	100		10	200m	450u	4.5Ø	1.0m	18	500nb	40	4.0		AΔ	TO5	A
56	GT74	150m		2.0m	#S	25		10		25u	5.0Ø	1.0m	75	500nb	40	5.0	35	A	TO5	A
57	GT81	150m		2.0m	#S	25		10		25u	5.0Ø	1.0m	75	500nb	40	5.0	35	A	TO5	A
58	GT82	150m		2.0m	#S	25		10		25u	5.0Ø	1.0m	150	500nb	40	8.0	35	A	TO5	
59	GT222	150m		2.0m	#S	12			200m	20u	5.0Ø	1.0m	20	500nb	40		35	A	TO5	
60	TR-C70	150m		2.8m	#J	16		12		10u	6.0	1.0m	30						TO5	
61	TR-C71	150m		2.8m	#J	12		9.0		10u	6.0	1.0m	60						TO5	
62	TR-C72	150m		2.8m	#J	20		16		20u	5.4	1.0m	100						TO5	
63#	2SB365	150m	1.2m	3.0m	ØJ	20	20 §	12	400m	14nØ	.50Ø	100mØ	90 †				50p	A	TO1	
64#	2SB475	150m	10k†	3.0m	ØJ	20	10	6.0	300m	20uØ								A	TO1	A
65	2N367	150m	300kΔ	2.5m	#J	30	25 §	10	75m	15u	5.0Ø	1.0mØ	19 Ø	1.5uØb	50 Ø	1.0 Ø			TO5	A
66	2N34	150m	400k	3.0m	ØJ	40			100m	50u	6.0Ø	1.0mØ	75	30u	2.5k	6.0		A	TO22	A
67	2N368	150m	400kΔ	2.5m	#J	30	25 §	10	75m	15u	5.0Ø	1.0mØ	49 Ø	1.5uØb	50 Ø	1.0 Ø			TO5	A
68	JAN2N464	150m	400kΔ	2.5m	#S	40		12		20u	6.0	1.0m	14 Δ	1.0uØb	45 Ø		60pØ		R81a	A
69	2N237	150m	.50M		#	45			20m	10u	6.0	1.0m	50							A
70	2N272	150m	500k	1.3m	J	20	24	10	100m	10u	5.0	1.0m	120				40p	A	TO5	
71	JAN2N465	150m	500kΔ	2.0m	#S	40	30	12	50m	15u	6.0	1.0m	27 Δ	1.0uØb	45 Ø		20pØ		TO5	A
72	JAN2N466M	150m	500kΔ	2.0m	#S	35		12		20u	6.0	1.0m	54 Δ	1.0uØb	45 Ø		60pØ		TO5	A
73	2N519A	150m	500kΔ	2.0m	#S	25		10		25u	.25Ø	20mØ	35 †	700nb	30	3.0	14p	AΔ	TO5	A
74#	ASY71	150m	500k	3.0m	ØJ	100	35			100u	0.0	10mØ	30 †Δ					Δ	R47	
75	JAN2N398A	150m	600kΔ	2.0m	#S	105	105 Ø	75	200m	14uØ	6.0Ø	1.0mØ	20 Δ				25pØ		TO5	A
76	MA909	150mØ	.60M	2.0m	#J	75	75	35	200m	50u	.35Ø	5.0mØ	20 †Δ					A	TO5	A
77	MA910	150mØ	.60M	2.0m	#J	90	90	45	200m	50u	.35Ø	5.0mØ	20 †Δ					A	TO5	A
78	2N405	150m	650k	3.3m	ØA	20	18	2.5	35m	14uØ	6.0Ø	1.0m	35	17u	1.1k	2.9	40p	A	TO44	A
79	2N406	150m	650k		ØA	20	18	2.5	35m	14uØ	6.0Ø	1.0m	35	17u	1.1k	2.9	40p	A	TO1	A
80	2N104	150m	700k	2.5m	ØA	30		12	50m	10uØ	6.0Ø	1.0mØ	44	23u	1.6k	5.0	40p	A	TO40	A
81	2N180	150m	.70M	3.0mØ		30		30		10u	6.0	1.0m	60				25p	A	R8a	A
82	2N181	150m	.70M	5.0mØ		30		30		10u	6.0	1.0m	60				25p	A	X41	A
83	2N215	150m	700k	2.5m	ØA	30		12	50m	10uØ	6.0Ø	1.0mØ	44	23u	1.6k	5.0	40p	A	TO1	A
84	JAN2N467	150m	700kΔ	2.0m	#S	35	15	12	50m	10u	6.0	1.0m	110 Δ	1.0uØb	45 Ø		20pØ		TO5	A
85#	2SB66H	150m	.70M			30	30	12	70m	6.0u	6.0Ø	1.0m	70	27u	2.2k	5.0	30p	A	TO1	
86#	2SB120	150m	.70M	2.5m	#J	32		2.5	20m	6.5uØ	12Ø	2.0m	70					A	TO1	
87	2N1129	150m	750k	2.5m	#J	25			250m	25u	.60Ø	100mØ	165 †	1.6ub	10	5.5	125p	AΔ	R2	
88	2N1130	150m	750k	2.5m	#J	30			250m	25u	.60Ø	100mØ	110 †	1.6ub	10	5.5	125p	AΔ	R2	
89	2N422	150m	.80M	2.5m	#J	35	20	12	100m	15uØ	6.0Ø	1.0m	50	19u	2.5k	5.5		FAØ	TO5	A
90	2N563	150m	800k	2.5m	#S	30		10		25u	5.0Ø	1.0m	25	700nb	35	2.5	30p		R116	
91	2N564	150m	800k	2.0m	#S	30		10		25u	5.0Ø	1.0m	25	700nb	35	2.5	30p		TO5	A
92#	2SB32	150m	800k	2.5m	#J	20		2.5	50m	14uØ	6.0Ø	1.0m	40	16u	1.5k	4.2		A	TO1	
93#	2SB136	150m	.80M	2.5m	#J	25	25 Ø	12	150m	10u	1.5Ø	50mØ	120 †					A	TO1	A
94#	2SB136A	150m	.80M	2.5m	#J	60	40 §	12	300m	10uØ	1.5Ø	50mØ	120 †					A	TO1	A
95#	2SB168	150m	.80M	2.5m	#J	9.0		2.5	100m	14u	3.0Ø	1.0m	60	20u	1.3k	4.9		A	TO1	
96#	2SB457	150m	.80M	2.5m	#J	20	20 Ø	2.5	500m	15uØ	1.0Ø	150mØ	110 †					A	TO1	A
97#	2SB457A	150m	.80M	2.5m	#J	32	32 Ø	6.0	500m	15uØ	1.0Ø	150mØ	110 †					A	TO1	A
98	2N45	150m	1.0M	2.0m	#	45		15	50m	10u	5.0	1.0m	12					A	TO29	A
99	2N45A	150m	1.0M		#J	45		5.0	10m	15u	5.0Ø	1.0mØ	15 Δ				40p		TO5	A
100	2N273	150m	1.0M	1.3m	J	20	30	10	10m	10u	.25Ø	50mØ	20				40p	A	TO5	
101	2N398A	150m	1.0M	2.0m	#J	105	105	50	200m	50u	.35Ø	5.0mØ	65 †						TO5	A
102	JAN2N422	150m	1.0MΔ	2.5m	#S	35		12		20u	35Ø	0.0	30 Δ	1.0uØ	45 Ø		60pØ	Ø	R81a	AØ
103	2N565	150m	1.0M	2.5m	#S	30		10		25u	5.0Ø	1.0m	55	550nb	30	3.5	30p		R116	
104	2N566	150m	1.0M	2.0m	#S	30		10		25u	5.0Ø	1.0m	55	550nb	30	3.5	30p		TO5	A
105#	2SB33	150m	1.0M	2.5m	#J	20		2.5	50m	14uØ	6.0Ø	1.0m	80	20u	2.6k	5.5		A	TO1	
106#	2SB37	150m	1.0M	2.5m	#J	30	20 §	12	50m	14u	6.0Ø	1.0m	80 *	20u	2.6k	5.5	45p	A	TO1	
107#	2SB54	150m	1.0M§	3.0m	ØJ	30	20 §	12	150m	14uØ	6.0Ø	1.0m	140	30u	4.2k	6.0	35p	A	TO1	A
108#	2SB55	150m	1.0M§	3.0m	ØJ	60	60 §	12	150m	14uØ	1.0Ø	50mØ	80 †				35p	A	TO1	
109#	2SB56	150m	1.0M§	3.0m	ØJ	30	25 §	12	150m	14uØ	1.0Ø	50mØ	80 †				35p	A	TO1	
110#	2SB56A	150m	1.0M§	3.0m	ØJ	45	45 §	12	150m	14uØ	1.0Ø	50mØ	80 †				35p	A	TO1	A

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T E M P MAX	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1#	2SB59	150m	1.0M	2.5m	#J	30	20	10	100m	15u	1.0Ø	50mØ	70 †					A△	TO1	
2#	2SB60	150m	1.0M	2.5m	#J	20		2.5	50m	14uØ	6.0	1.0m	65	300nb	30	3.0		A	TO1	
3#	2SB60A	150m	1.0M	2.5m	#J	20	20 Ø	2.5	50m	14uØ	1.0Ø	50mØ	70 †					A	TO1	
4#	2SB61	150m	1.0M	2.5m	#J	30		12	50m	10u	6.0Ø	1.0m	85	30u	3.0k	7.0	40p	A	TO1	
5#	2SB65	150m	1.0M	2.5m	#J	30	20 §	12	100m	15u	6.0Ø	1.0m	65	30u	3.0k	7.0	40p	A	TO1	
6#	2SB169	150m	1.0M	2.5m	#J	9.0		2.5	100m	14u	3.0Ø	1.0m	85	24u	2.3k	6.3		A	TO1	
7	MA200	150m	1.0M	2.0m	#J	105	105	10	200m	50u	.35Ø	5.0mØ	20 †△					A	TO5	A
8	MA201	150m	1.0M	2.0m	#J	105	105	20	200m	50u	.35Ø	5.0mØ	20 †△					A	TO5	A
9	MA202	150m	1.0M	2.0m	#J	105	105	10	200m	50u	.35Ø	5.0mØ	40 †△					A	TO5	A
10	MA203	150m	1.0M	2.0m	#J	105	105	20	200m	50u	.35Ø	5.0mØ	40 †△					A	TO5	A
11	MA204	150m	1.0M	2.0m	#J	90	90	20	200m	50u	.35Ø	5.0mØ	20 †△					A	TO5	A
12	MA205	150m	1.0M	2.0m	#J	75	75	20	200m	50u	.35Ø	5.0mØ	20 †△					A	TO5	A
13	MA206	150m	1.0M	2.0m	#J	60	60	10	200m	50u	.35Ø	5.0mØ	20 †△					A	TO5	A
14#	TF66	150m	1.0M	3.3m	ØJ	16	12	10	300m	18u	.50Ø	5.0mØ	45	135u	500	8.0	40p	A	R118	
15#	TF66/30	150m	1.0M	3.3m	ØJ	32	24	10	300m	18u	.50Ø	5.0mØ	45	135u	500	8.0	40p	A	R118	
16#	TF66/60	150m	1.0M	3.3m	ØJ	64	45	16	300m	18u	.50Ø	5.0mØ	45	135u	500	8.0	40p	A		
17	2N1128	150m	1.2M	2.5m	#J	25			250m	20u	10	2.0mØ	120	500nb	14	1.8	45p	A	R2	
18#	2SB75AH	150m	1.2M			45	45 Ø	12	100m	6.0u	6.0Ø	1.0m	55	23u	1.6k	3.0	52p	A	TO1	
19#	2SB75H	150m	1.2M			30		12	100m	6.0u	6.0Ø	1.0m	55	23u	1.6k	30	52p	A	TO1	
20#	2SB364	150m	1.2M	3.0m	ØJ	20	20 §	12	400m	14uØ	.50Ø	100mØ	90 †				50p	A	TO1	
21#	AC116	150m	1.2M	5.0m	ØJ	30		12	100m	15u	6.0	4.0m	90					A	X9	
22#	AC123	150m	1.2M	5.0m	ØJ	45		12	100m	15u	6.0	4.0m	90					A	X9	
23	2N369	150mØ	1.3M		ØS	30		10	50m		5.0	1.0m	95					A	OV9	
24	2N568	150m	1.5M	2.0m	#S	30		10		25u	5.0Ø	1.0m	100	400nb	30	4.0	30p		TO5	A
25#	2SB66	150m	1.5M			30		12	70m	14u	6.0Ø	1.0m	70	27u	2.2k	5.0	32p	A	TO1	
26#	2SB77AH	150m	1.5M			45	30	12	100m	6.0u	6.0Ø	1.0m	70	26u	1.9k	3.8		A	TO1	
27#	2SB77H	150m	1.5M			30	30	12	100m	6.0u	6.0Ø	1.0mØ	70	26u	1.9k	3.8		A	TO1	
28#	2SB386†	150m	1.5M	2.5m	#J	30	30 Ø	15	300m	10uØ	.50Ø	50mØ	80 †					A	TO1	A
29#	AC151	150m*	1.5M§	3.3m	#J	32	24	10	200m	25u	1.0Ø	2.0mØ	110	130u	1.0k	14	27p	AØ	TO1	
30#	AC151R	150m*	1.5M§	3.3m	#J	32	24	10	200m	100uØ	1.0Ø	2.0mØ	80	100u	750	9.0	27p	AØ	TO1	
31#	ACY23	150m*	1.5M§	3.3m	#J	32	30	16	200m	10uØ	5.0Ø	1.0mØ	100	40u	3.0k	7.0	27p	A	TO1	
32#	ACY32	150m*	1.5M§	3.3m	#J	32	30	16	200m	10uØ	5.0Ø	1.0mØ	100	40u	3.0k	7.0	27p	AØ	TO1	
33	TR45	150m	1.5M	2.5m	#J	45		5.0	400m	16u	1.0Ø	20mØ	20 †				20p		TO5	
34	2N569	150m	2.0M	2.5m	#S	30		10		25u	5.0Ø	1.0m	150	400nb	30	5.0	30p		R116	
35	2N570	150m	2.0M	2.0m	#S	30		10		25u	5.0Ø	1.0m	150	400nb	30	5.0	30p		TO5	A
36#	2SB75	150m	2.0M			2.5	25 Ø	12	100m	14u	6.0Ø	1.0mØ	55	17k	17k	3.0		A	TO1	
37#	2SB75A	150m	2.0M			45	45 Ø	12	100m		6.0Ø	1.0mØ	55	17k	17k	3.0		A	TO1	
38#	2SB77	150m	2.0M			25	25 Ø	12	100m	14u	6.0Ø	1.0mØ	70	26u	1.9k	3.8		A	TO1	
39#	2SB77A	150m	2.0M			45	45 Ø	12	100m	25u	6.0Ø	1.0mØ	70	26u	1.9k	3.8		A	TO1	
40#	2SB439	150m	2.0M	3.0m	ØJ	30	20 §	12	150m	14uØ	6.0Ø	1.0m	130	45u	4.0k	8.0	30p	AØ	TO1	
41#	2SB440	150m	2.0M	3.0m	ØJ	30	20 §	12	150m	14uØ	6.0Ø	1.0m	130	45u	4.0k	8.0	30p	AØ	TO1	
42	GT122	150m	2.0M	2.0m	#S	25		10		25u	5.0Ø	1.0m	100	500nb	40	5.0	35p	A△	TO5	A
43	TR650	150m	2.0M	2.5m	#J	45	25	25	400m	15uØ	6.0Ø	1.0m	40				20p	A	TO5	A
44	TR653	150m	2.0M	2.5m	#J	30	15	25	400m	15uØ	6.0Ø	1.0m	40				20p	A	TO5	A
45	TR44	150m	2.2M	2.5m	#J	45		5.0	400m	16u	1.0Ø	20mØ	30 †				20p		TO5	
46	2N413A	150m	2.5M	2.5m	#J	30			200m		6.0Ø		30						TO5	A
47	JAN2N425†	150m	2.5M△	2.0m	#S	30	20	20	400m	3.0uØ	.25Ø	1.0m△	20 †△				20pⱭ		TO5	A
48	2N529	150m	2.5M	1.6m	#S	15				25u	5.0Ø	1.0m△	18	1.0ub	28	3.0	14p	A	TO5	A
49	2N1352	150m	2.5M△	2.5m	#J	30	20	15	200m	5.0u	6.0	1.0m	70 †				18p	A	TO5	A
50	TR43	150m	2.5M	2.5m	#J	45		5.0	400m	16u	1.0Ø	20mØ	45 †				20p		TO5	
51	TR320	150m	2.5M△	2.5m	#J	30		5.0	200m	16u	1.0Ø	20mØ	50				20p		TO5	
52	TR323	150m	2.5M	2.5m	#J	16		5.0	200m	16u	1.0Ø	20mØ	75				20p		TO5	
53	TR722	150m	2.5M△	2.5m	#J	30		10	200m	20u	6.0	1.0m	22				20p		TO5	
54	JAN2N44A	150m	3.0MⱭ	2.5m	#J	45	30 §	5.0		16u	5.0Ø	1.0m	38 Ⱬ	1.5uⱭb	38		60p		R32	
55	JAN2N426†	150m	3.0M△	2.0m	#S	30	18	20	400m	3.0uØ	.25Ø	1.0m△	30 †△				20pⱭ		TO5	A
56	2N481	150m	3.0M	2.5m	#J	12			20m	10u	6.0Ø	1.0m	50				14p	FA	TO5	A
57	2N520	150m	3.0M△	1.6m	#S	15		10		25u	4.5Ø	1.0m	40	700nb	30	6.0		A	TO5	A
58	2N520A	150m	3.0M△	2.0m	#S	25		10		25u	.25Ø	20mØ	100 †	700nb	30	6.0	14p	A△	TO5	A
59	2N530	150m	3.0M	1.6m	#S	15				25u	5.0Ø	1.0m△	23	900nb	28	3.0	14p	A	TO5	A
60	2N571	150m	3.0M	2.5m	#S	30		10		25u	5.0Ø	1.0m	200	400nb	30	10	30p		R116	
61	2N572	150m	3.0M	2.0m	#S	30		10		25u	5.0Ø	1.0m	200	400nb	30	10	16p		TO5	A
62	JAN2N1303	150m	3.0M△	2.5m	#S	30		25	300m	6.0u	1.0Ø	10mØ	20 †△				20pⱭ		TO5	§
63#	SFT237	150m	3.0M△	2.5m	#J	15	15 #	9.0	100m	2.0uØ	6.0Ø	1.0mØ	100	60u	2.7k	5.0		AØ	TO5	A
64#	SFT306	150m	3.0M	2.5m	#J	18		12	100m	10u	6.0Ø	1.0mØ	28				8.0p	A	TO1	A
65#	SFT337	150m	3.0M△	2.5m	#A	15	15 #	9.0	100m	2.5uØ	6.0Ø	1.0mØ	50 △	50u	2.2k	5.0			TO1	AØ
66	TR721	150m	3.0M△	2.5m	#J	30		10	200m	20u	6.0	1.0m	45				20p		TO5	
67	TR321	150m	3.1M△	2.5m	#J	20		5.0	200m	16u	1.0Ø	20mØ	80				20p		TO5	
68	JAN2N43A	150m	3.5MⱭ	2.5m	#J	45	30 §	5.0		16u	5.0Ø	1.0m	66 Ⱬ	1.5uⱭb	35		60p		R32	
69	2N482	150m	3.5M	2.5m	#J	12			20m	10u	6.0Ø	1.0m	50				12p	FA	TO5	A
70	2N531	150m	3.5M	1.6m	#S	15				25u	5.0Ø	1.0m△	28	800nb	28	3.0	14p		TO5	A
71	TR482	150m	3.5M	2.5m	#J	14		5.0	200m	10u	60	1.0m	20				12p		TO5	
72	TR508	150m	3.5M	2.5m	#J	16		5.0	200m	16u	1.0Ø	20mØ	25				20p		TO5	
73	2N438A	150m	3.7M	2.5m	#J	25		25	300m	10u	1.0Ø	50mØ	25	1.0ub	27	4.0	9.0p	A	TO5	A
74	2N394	150m	4.0M△	2.5m	#J	30	10	20	200m	100u	1.0Ø	10mØ	70 †				12p	A△	TO5	A§
75	JAN2N404	150m	4.0M△	2.5m	#J	25	24	12	200m	5.0uØ	.15Ø	12mØ	30 △				20pⱭ		TO5	A
76	2N404A†	150m	4.0M△	2.0m	#J	40	35	25	150m	5.0uØ	.30Ø	4.0m	100				20p	A△	TO5	A§
77	JAN2N404A	150m	4.0M△	2.0m	#J	40	35	25	200m	5.0uØ	.15Ø	12mØ	30 △				20pⱭ		TO5	A
78	2N532	150m	4.0M	2.0m	#S	15				25u	5.0Ø	1.0m△	33	700nb	28	3.0	14p		TO5	A
79	2N1343	150m	4.0M△	2.5m	#J	20	16	10	400m	6.0uØ	.35Ø	50mØ	40 †				12p	A△	TO5	A
80	2N1404	150m	4.0M△	2.5m		25		20	300m	5.0u	.20Ø	24mØ	100 †				8.0p	A	TO5	A§
81	40269	150m	4.0M△	2.5m	ØJ	25		12	100m	5.0uØ	.15Ø	12mØ	50 †△					A△	TO5	A
82	ASY26†	150m	4.0M§△	2.5m	#J	30	25	20		3.0uØ	0.0	200m	15 †△				15pⱭ		TO5	
83	TR-C45	150m	4.0M	2.5m	#J	12		9.0		10u	6.0	1.0m	40				12p		TO5	
84	2N533	150m	4.5M	2.0m	#J	15				25u	5.0Ø	1.0m△	38	600nb	28	3.0	24p		TO5	A
85	JAN2N123	150m	5.0M△	2.5m	#S	20	15 #	10		6.0u	1.0Ø	10mØ	30 †△				25pⱭ	A	R32	
86	2N315†	150m	5.0M	2.0m	#S	20	15	20	500m	25u	.20Ø	100m	20 †	500nb			14p	A	TO5	A
87	2N315A†	150m	5.0M	2.0m	#S	30		20		25u	.20Ø	100mØ	35	500nb			14p	A	TO5	A
88♦	JAN2N416	150m	5.0M△	2.0m	#J	30		12		25u	6.0	1.0m	45 △				20pⱭ		RO81	A
89	JAN2N427†	150m	5.0M△	2.0m	#S	30	15	20	400m	3.0uØ	.25Ø	1.0m△	45 †△				20pⱭ		TO5	A
90	2N1093	150m	5.0M△	2.5m	#S	30	15	15	300m	6.0u	5.0Ø	1.0mØ	40 △				20p		TO5	AØ
91	2N1115	150m	5.0M△		#J		15		125m	6.0u									OV5	
92	JAN2N1305	150m	5.0M△	2.5m	#S	30		25	300m	6.0uØ	1.0Ø	10mØ	40 †△				20pⱭ		TO5	§
93	2N1347	150m	5.0M△	2.5m	#J	20	12	10	200m	6.0uØ	1.0Ø	10mØ	80 †				12p	A△	TO5	A
94	2N1731	150m	5.0M△	2.5m	#S	30	30 #	25	300m	6.0u	1.0Ø	10mØ	40 †△				20pⱭ		TO5	A§
95#	AF187	150m	5.0M			18			100m									A	TO1	
96	GT123†	150m	5.0M△	2.0m	#S	25	15 §	15		6.0uØ	1.0Ø	10m	90	700nb	30	6.0	15p	A	TO5	
97#	NKT135†	150m	5.0M	2.1m	#J	30	20	25	300m	6.0uØ	1.0Ø	10mØ	40 †△				20pⱭ		TO5	A
98	2N483	150m	5.5M	2.5m	#J	12			20m	10u	6.0Ø	1.0m	60				12p	FA	TO5	A
99#	2SA414†	150m	5.5M§		#J	30	25	20	200m	3.0uØ	.50Ø	100mØ	30 †					A	TO5	
100#	SFT226†	150m	5.5M§	2.5m	#J	40	32 §	24	250m	10u	.50Ø	10mØ	25 †△					A△	TO5	A
101#	ASY27†	150m	6.0M§△	2.5m	#J	25	20	20		3.0uØ	0.0	200m	20 †△				16pⱭ		TO5	
102	2N302	150m	7.0M△	2.5m	#J	30	10	20	200m	1.0uØ	6.0	1.0m	45				12p§	AF	OV4	F
103	2N394A	150m	7.0M	2.5m	#S	30	15 §	20	200m	6.0uØ	1.0Ø	10mØ	70 †		2.0k		12p	A	TO5	AØ
104	2N414A	150m	7.0M	2.5m	#	30			200m		6.0Ø		60					A	TO5	A
105	2N1344†	150m	7.0M△	2.5m	#J	15	10	10	400m	10u	1.0Ø	20mØ	90 †				12p	A	TO5	A
106#	SFT307	150m	7.0M	2.5m	#J	18		12	100m	10u	6.0Ø	1.0mØ	40				8.0p	A	TO1	A
107	2N439A	150m	7.5M	2.5m	#J	25		25	300m	10u	1.0Ø	50mØ	45	1.0ub	27	4.0	9.0p	A△	TO5	A
108	2N485	150m	7.5M	2.5m	#J	12			10m	10u	6.0	1.0m	50				12p	FA	TO5	A
109#	SFT227†	150m	7.5M§	2.5m	#J	30	24 §	18	250m	10u	.50Ø	10mØ	35 †△					A△	TO5	A
110	2N123†	150m	8.0M	2.5m	#J	20	15	10	125m	6.0u	1.0Ø	10mØ	75	65u	3.0k	6.0	12p	A	R32	

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N396†	150m	8.0M	3.3m	#S	30	20 §	20	200m	6.0uØ	1.0Ø	10m	30 †Δ	b		1.0	12p	A	TO5	A§
2	2N521	150m	8.0MΔ	1.6m	#S	15		10		25u	4.5Ø	1.0m	7.0	700nb	30	10	14p	A	TO5	A
3	2N521A	150m	8.0MΔ	2.0m	#S	25		10		25u	.25Ø	20m	150 †	700nb	30	10	14p	A	TO5	A
4	2N581†	150m	8.0M	2.5m	#A	18		10	100m	20u	.30Ø	20mØ	30 †				12p	A	TO5	A
5#	2SA415†	150m	8.0M§		#J	25	20	20	200m	3.0uØ	.50Ø	100mØ	45 †					A	TO5	
6	TR-C44	150m	8.0M	2.5m	#J	6.0		6.0		10u	6.0	1.0m	80				12			
7	2N415	150m	10.M	2.5m	#J		12 Ø	20	50m	2.0u	6.0	1.0m	30				30p	F	TO5	A
8	2N415A	150m	10.M	2.5m	#J	30			200m		6.0Ø		80					A	TO5	A
9	JAN2N428†	150m	10MΔ	2.5m	#S	30	12	20		25u	.25Ø	1.0mΔ	60 †Δ				20pØ		TO5	A
10	2N428A†	150m	10.MΔ	2.0m	#S	30	18	20		4.0uØ	.25Ø	10mΔ	20 †Δ				20pØ	A	TO5	
11	2N440A	150m	10M	2.5m	#J	25		25	300m	10u	1.0Ø	50mØ	70	1.0ub	27	4.0	9.0p	AΔ	TO5	A
12	2N450	150m	10.M	2.5m	#J	20	12	10	125m	6.0uØ	5.0Ø	1.0m	130	90u	4.0k	6.5	20pØ	AΔ	R116	AØ
13	2N484	150m	10.M	2.5m	#J	12			20m	10u	6.0Ø	1.0m	90				12p	FA	TO5	A
14	JAN2N1307	150m	10MΔ	2.5m	#S	30	15	25	300m	6.0uØ	1.0Ø	10mØ	60 †Δ				20pØ		TO5	§
15	2N1345†	150m	10.MΔ	2.5m	#J	10	8.0	6.0	400m	6.0u	.30Ø	400mØ	60 †				14p	A	TO5	A
16	2N1346†	150m	10.MΔ	2.5m	#J	12	10	8.0	400m	5.0uØ	.25Ø	.35mØ	125 †				14p	A	TO5	A
17	2N1969†	150m	10.MΔ	2.5m	#J	30	15	20	400m	25u	.25Ø	.20mΔ	50 †Δ				20pØ		TO5	A
18#	AF188	150m	10.M			18			100m									A	TO1	
19#	NKT137†	150m	10.M	2.1m	#J	30	15	25	300m	6.0uØ	1.0Ø	10mØ	60 †Δ				20pØ		TO5	A
20	2N518	150m	11M	2.5m	#J	45		30	125m	6.0u	1.0Ø	10mØ	60	b		100	12p	A	R32	
21	2N316†	150m	12M	2.0m	#S	20	10	20	500m	25u	.20Ø	200m	30 †	500nb			14p	A	TO5	A
22	2N316A	150m	12M	2.0m	#S	30		20		25u	.20Ø	200mØ	35 †	500nb			14p	A	TO5	A
23	2N486	150m	12.M	2.5m	#J	12			10m	10u	6.0	1.0m	100				12p	FA	TO5	A
24#	SFT228†	150m	12.M§	2.5m	#J	24	20 §	12	250m	10u	.50Ø	10mØ	50 †Δ					AΔ	TO5	A
25	2N404†	150m	13.M	2.5m	#A	25		12	100m	20u	.20Ø	24mØ	40 †				12p	A	TO5	A§
26#	SFT308	150m	13.M	2.5m	#J	18		12	100m	10u	6.0Ø	1.0mØ	70				9.0p	A	TO1	A
27	2N303	150m	14.MΔ	2.5m	#J	30	10	20	200m	1.0uØ	6.0	1.0m	75				12p$	AF	OV4	F
28♦	JAN2N417	150m	15MΔ	2.0m	#J	30		12		25u	6.0	1.0m	60 Δ				20pØ		RO81	A
29	2N522A	150m	15MΔ	2.0m	#S	25		10		25u	.25Ø	20mØ	200 †	700nb	30	14	14p	AΔ	TO5	A
30	JAN2N1309	150m	15MΔ	2.5m	#S	30		25	300m	6.0uØ	1.0Ø	10mØ	80 †Δ				20pØ		TO5	§
31	2N1309A	150m	15.MΔ	2.5m	#J	35	15 #	35	300m	6.0uØ	1.0Ø	10mØ	80 †Δ				20pØ	†	TO5	
32#	ACY38	150m	15.M§	2.5m	#S	15	15 #	9.0	100m	2.0uØ	6.0	1.0m	100 *	60u	3.0k	5.0		AØ	TO5	
33#	SFT288†	150m	16.M	2.5m	#J	24		12	500m	10u	.35Ø	400mØ	40 †Δ				12p	AΔ	TO5	A
34	2N582†	150m	18.M	2.5m	#A	25		12	100m	20u	.20Ø	24mØ	60 †				12p	A	TO5	A
35	2N317†	150m	20M	2.5m	#S	20	6.0	20	400m	2.0uØ	.25Ø	400mØ	40 †	500nb			12p	A	TO5	A
36	2N317A†	150m	20M	2.0m	#S	25		20		25u	.25Ø	400mØ	40 †	500nb			14p	A	TO5	A
37#	SFT319	150m	20.M§	2.5m	#J	20		.50	10m	15uØ	9.0Ø	1.0mØ	50				2.5p	D	TO1	A
38	2N523A	150m	21MΔ	2.0m	#S	25		10		25u	.25Ø	20mØ	250 †	700nb	30	20	143p	AΔ	TO5	A
39#	SFT229†	150m	25.M	2.5m	#J	18	15 §	12	250m	10u	.50Ø	10mØ	75 †Δ					AΔ	TO5	
40#	ASY30	150m	30.M		ØJ	50		.70	250m	20u	.55	4.0m	90					D	X9	
41#	SFT320	150m	35.M§	2.5m	#J	20		.50	10m	15uØ	9.0Ø	1.0mØ	80				2.5p	D	TO1	A
42	2N794†	150m	40.M§	2.5m	#A	13	12	1.0	100m	3.0uØ	.30Ø	10mØ	50 †				8.0p	ME	TO18	A
43	2N1854	150m	40.M§Δ	2.5m	#J	18		2.0	100m	4.2u	.50Ø	20m	40 Δ				12pØ		TO5	A
44	JAN2N1854†	150m	40M§Δ	3.7m	#S	18		2.0	100m	40uØ†	.75Ø	100mØ	25 †Δ						TO5	A
45#	SFT317	150m	40.M§	2.5m	#J	20		.50	10m	15uØ	9.0Ø	1.0mØ	100				2.5p	D	TO1	A
46	2N795†	150m	60.M§	2.5m	#A	13	12	4.0	100m	3.0uØ	.30Ø	10mØ	50 †				8.0p	ME	TO18	A
47#	2SA412†	150m	60.M§	2.5m	#J						.50	30m	30 †				12p		TO1	
48#	AFY14	150m	60.M		ØJ	40		.60	250m	20u	6.0	1.0m	80					D	X9	
49	2N796†	150m	80.M§	2.5m	#A	13	12	4.0	100m	3.0uØ	.30Ø	10mØ	75 †				8.0p	ME	TO18	A
50	2N1683†	150m	80.M	2.0m	#A	13	12	4.0	100m	3.0uØ	.50Ø	40mØ	85 †				8.0p	ME	TO5	A
51	TI397	150m	90.M§	2.5m	#J	35	35 Ø	2.0	50m	3.0uØ	6.0Ø	.50mØ	28 Δ				2.0p	ME	TO58	F
52	TI398	150m	90.M§	2.5m	#J	35	35 Ø	2.0	50m	5.0uØ	6.0Ø	.50mØ	28 Δ				2.0p	ME	TO58	F
53	TI399	150m	110M§	2.5m	#J	35	35 Ø	2.0	50m	5.0uØ	6.0Ø	.50mØ	50 Δ				2.0p	ME	TO58	F
54#	2G106†	150m	120M§	2.0m	#A	18	15 Ø	4.0	100m	100u	.25Ø	10mØ	30 †Δ				5pØ	ME	TO18	
55	2N711A†	150m	150M§	2.0m	#S	15	7.0	1.5	100m	1.5uØ	.50Ø	10mØ	25 †Δ				6pØ	ME	TO18	AØ
56	2N711B†	150m	150M§	2.0m	#S	18	7.0	2.0	100m	1.5uØ	.50Ø	10mØ	30 †Δ				6pØ	ME	TO18	AØ
57	2N2400†	150m	150M§Δ	2.0m	#S	12	7.0	1.0	100m	3.0uØ	.50Ø	10mØ	30 †Δ				4pØ		TO18	A
58	2N2401†	150m	200M§Δ	2.0m	#S	15	10	1.5	100m	1.5uØ	.50Ø	10mØ	50 †Δ				4pØ		TO18	A
59	2N3325	150m	200M§Δ	2.0m	#J	35	35 Ø	3.0	100m	10uØ	10Ø	3.0mØ	30 Δ				3pØ		TO18	A
60	TI365	150m	200M	2.5m	#J	30	30	2.0	50m	5.0uØ	9.0Ø	1.0mØ	30 †Δ				3.3pØ	ME	TO58	F
61	TI388	150m	200M	2.5m	#J	30	30	2.0	50m	5.0uØ	6.0Ø	1.0mØ	35 †				2.6p	ME	TO58	F
62	TI389	150m	200M	2.5m	#J	30	30	2.0	50m	5.0uØ	6.0Ø	1.0mØ	20 †				2.6p	ME	TO58	F
63	TI395	150m	200M	2.5m	#J	30	30 Ø	2.0	50m	5.0uØ	1.0Ø	10mØ	220 †Ø				3.0p	ME	R44	
64	2N827	150m	250M§Δ	2.0m	#S	20	20 Ø	4.0	100m		.30Ø	10mØ	100 †Δ				9pØ	Δ	TO18	A
65	2N963†	150m	250M§Δ	2.0m	#J	12	7.0	1.2	100m	5.0uØ	.30Ø	10mØ	20 †Δ				5.0pØ		TO18	AØ
66	2N967†	150m	250M§Δ	2.0m	#J	12	7.0	1.2	100m	5.0uØ	.30Ø	10mØ	40 †Δ				5.0pØ		TO18	AØ
67	2N2048†	150m	250M§	2.0m	#S	20	15	2.0	100m	100u	.50Ø	10mØ	125 †				1.5p	ME	TO9	A
68	2N2258†	150m	250M§Δ	2.0m	#J	7.0	7.0	1.0	100m	10uØ	1.0Ø	10mØ	30 †				4.0p	ME	TO18	A
69	2N2259†	150m	250M§Δ	2.0m	#J	7.0	7.0	1.0	100m	10uØ	1.0Ø	10mØ	50 †				4.0p	ME	TO18	A
70	2N2402†	150m	250M§Δ	2.0m	#S	18	12	2.0	100m	1.5uØ	.50Ø	10mØ	60 †Δ				4pØ		TO18	A
71#	AF179	150m	270M§	3.1m	ØJ	25	25 §		10m	8.0uØ		3.0mØ	30 †					AD	TO12	
72	2N2635†	150m	280M	2.0m	#S	30	12	2.5	100m		1.0Ø	50mØ	45 †Δ				5pØ	E	TO18	AØ
73#	2G103†	150m	300M	4.0m	#J	15	15 Ø	2.0	50m	3.0uØ	5.0	10m	40 †				5.0p	ME	TO18	
74#	2G104†	150m	300M	4.0m	#J	15	15 Ø	3.5	50m	3.0uØ	50Ø	10m	40 †				5.0p	ME	TO18	
75	JAN2N559†	150m	300M§Δ	2.0m	$S	15	15 Ø	5.0	50m	3.0uØ	.50Ø	10mØ	30 †Δ#				6.0pØ		TO18	AØ
76	2N705A	150m	300M	2.0m	#J	15					.30	10m	40						TO18	AØ
77	2N828†	150m	300M§Δ	2.0m	#J	15	6.0	2.5	200m	3.0uØ	.30Ø	10mØ	25 †Δ				6pØ		TO18	AØ
78	2N829†	150m	300M§Δ	2.0m	#S	15	6.0	2.5	200m	3.0uØ	.30Ø	10mØ	50 †Δ				4pØ		TO18	AØ
79	2N838	150m	300M§Δ	2.0m	#S	30	30 Ø	2.5	100m		.30Ø	10mØ	30 †Δ				4pØ	Δ	TO18	AØ
80	2N960†	150m	300M§Δ	2.0m	#J	15	7.0	2.5	100m	3.0uØ	.30Ø	10mØ	20 †Δ				4pØ		TO18	AØ
81	2N961†	150m	300M§Δ	2.0m	#J	12	7.0	2.0	100m	3.0uØ	.30Ø	10mØ	20 †Δ				4pØ		TO18	AØ
82	2N962†	150m	300M§Δ	2.0m	#J	12	7.0	1.2	100m	3.0uØ	.30Ø	10mØ	20 †Δ				4.0pØ		TO18	AØ
83	JAN2N962†	150m	300M§Δ	2.0m	#J	12	7.0	1.3	200m	3.0uØ	.30Ø	10mØ	20 †Δ				5.0pØ	E	TO18	AØ
84	2N964†	150m	300M§Δ	2.0m	#J	15	7.0	2.5	100m	3.0uØ	.30Ø	10mØ	40 †Δ				4pØ		TO18	AØ
85	JAN2N964†	150m	300M§Δ	2.0m	#J	15	7.0	2.5	200m	3.0uØ	.30Ø	10mØ	40 †Δ				5.0pØ	E	TO18	AØ
86	2N964A†	150m	300M§Δ	2.0m	#S	15	7.0	2.5	100m	3.0uØ	1.0Ø	50mØ	48 †Δ				4pØ		TO18	AØ
87	2N965†	150m	300M§Δ	2.0m	#J	12	7.0	2.0	100m	3.0uØ	.30Ø	10mØ	40 †Δ				4pØ		TO18	AØ
88	2N966†	150m	300M§Δ	2.0m	#J	12	7.0	1.2	100m	3.0uØ	.30Ø	10mØ	40 †Δ				4.0pØ		TO18	AØ
89	2N968†	150m	300M§Δ	2.0m	#J	15	15 Ø	2.5	200m	3.0uØ	.50Ø	10mØ	17 †Δ				8pØ		TO18	AØ
90	2N969†	150m	300M§Δ	2.0m	#J	12	12 Ø	2.0	200m	3.0uØ	.50Ø	10mØ	17 †Δ				8pØ		TO18	AØ
91	2N970†	150m	300M§Δ	2.0m	#J	12	12 Ø	1.2	200m	3.0uØ	.50Ø	10mØ	17 †Δ				8.0pØ		TO18	AØ
92	2N971†	150m	300M§Δ	2.0m	#J	7.0	7.0 Ø	1.2	200m	10uØ	.50Ø	10mØ	17 †Δ				8.0pØ		TO18	AØ
93	2N972†	150m	300M§Δ	2.0m	#J	15	15 Ø	2.5	200m	3.0uØ	.50Ø	10mØ	40 †Δ				8pØ		TO18	AØ
94	2N973†	150m	300M§Δ	2.0m	#J	12	12 Ø	2.0	200m	3.0uØ	.50Ø	10mØ	17 †Δ				8pØ		TO18	AØ
95	2N974†	150m	300M§Δ	2.0m	#J	12	12 Ø	1.2	200m	3.0uØ	.50Ø	10mØ	17 †Δ				8.0pØ		TO18	AØ
96	2N975†	150m	300M§Δ	2.0m	#J	7.0	7.0 Ø	1.2	200m	10uØ	.50Ø	10mØ	40 †Δ				8.0pØ		TO18	AØ
97	2N985†	150m	300M§	2.0m	#J	15	7.0	3.0	200m	100u	.50Ø	100m	60 †Δ				6.0p	EM	TO18	AØ
98	2N3449†	150m	300M§Δ	2.0m	#S	15	6.0	1.5	100m	3.0uØ	.25Ø	10mØ	20 †Δ				5pØ		TO18	AØ
99	JAN2N3449†	150m	300M§Δ	2.0m	#S	15	6.0	1.5	100m	100u	.25Ø	10mØ	20 †Δ				5.0pØ		TO18	AØ
100	2N2955†	150m	350M§	2.0m	#J	40	25	3.5	100m		1.0Ø	50mØ	43 †				4pØ	EMΔ	TO18	A
101	2N741	150m	360M§	2.0m	#J	15	15	1.0	100m	3.0uØ	6.0Ø	5.0mØ	25 †	45ub	8.0		6.0p	ME	TO18	AØ
102	2N741A	150m	360M§	2.0m	#	20	20	1.0	100m	3.0uØ	6.0Ø	5.0m	25 †	45u			6.0p	ME	TO18	AØ
103	2N2956†	150m	375M§	2.0m	#J	40	20	3.5	100m		1.0Ø	50mØ	76 †				4pØ	EMΔ	TO18	A
104	2N828A	150m	400M§	2.0m	#J	15		2.5		3.0u	.30Ø	10mØ	25 †Δ					EMΔ	TO18	AØ
105	2N2957†	150m	400M§	2.0m	#J	40	18	3.5	100m		1.0Ø	50mØ	130 †				4pØ	EMΔ	TO18	A
106	2N3371	150m	400M§Δ	2.0m	♦S	25	10	.30	100m	7.0uØ	6.0Ø	12mØ	25 Δ				4.0pØ	Ø	TO18	Ø
107#	2SA417†	150m	400M§	2.0m	#J	15	15 Ø	2.5	200m		.30Ø	10mØ	70 †				4.0p	EM	TO46	AØ
108#	2SA450H†	150m	530M§	2.0m	#J	12	6.0	1.5	100m	3.0uØ	1.0Ø	50mØ	45				2.3p	EM	TO18	A
109#	2SA451H†	150m	530M§	2.0m	#J	12	6.0	1.5	100m	3.0uØ	1.0Ø	50mØ	95				2.3p	EM	TO18	A
110#	2SA452H†	150m	530M§	2.0m	#J	12	6.0	1.5	100m	3.0uØ	1.0Ø	50mØ					2.3p	EM	TO18	A

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	JAN2N1094	150m	560M§Δ	2.0m	#J	30		1.0	40m	5.0uØ	6.0Ø	4.0mØ	15 †Δ	20uØb	15 Ø	30 Ø		D	TO28	AØ
2	2N3323	150m	600M§	2.0m	#J	35	35 Ø	3.0	100m	10uØ	10Ø	3.0mØ	30 Δ				3pØ		TO18	A
3	2N3324	150m	600M§	2.0m	#J	35	35 Ø	3.0	100m	10uØ	10Ø	3.0mØ	30 Δ				3pØ		TO18	A
4	2N3784	150m	700M§Δ	2.0m	#J	30	20	.50	20m	5.0uØ	10Ø	3.0mØ	20 Δ				1pØ	EMØ	TO72	G
5	2N3785	150m	700M§Δ	2.0m	#J	15	12	.50	20m	5.0uØ	10Ø	3.0mØ	15 Δ				1.2pØ	EMØ	TO72	G
6	2N3783	150m	800M§Δ	2.0m	#J	30	20	.50	20m	5.0uØ	10Ø	3.0mØ	20 Δ				1pØ	EMØ	TO72	G
7	MM5000	150m	800M§Δ	2.0m	#J	30	15	.30	10m		12Ø	3.0mØ	30 †Δ				.6p$Ø	Ø	TO72	G
8	MM5001	150m	800M§Δ	2.0m	#J	30	15	.30	10m		12Ø	3.0mØ	30 †Δ				.6p$Ø	Ø	TO72	G
9	MM5002	150m	800M§Δ	2.0m	#J	30	15	.30	10m		12Ø	3.0mØ	30 †Δ				.6p$Ø	Ø	TO72	G
10	2N44A	155m	1.0MØ	2.5m	#S		25		50m	8.0u	5.0	1.0m	31				40p		R32	A
11#	AF180	156m	250M	3.1m	ØJ	25	25		25m	10uØ	5.0	14m	14 †Δ				3.0p	ADØ	TO12	
12	AFY42	160m	650M	1.3m	ØS	30	25	.30	10m	6.0u	10Ø	2.0mØ	33 †				250f		TO18	
13	2N109	165m		2.8m	#S	35	25	12	150m	7.0uØ	1.0Ø	50mØ	65 Δ				60pØ	AΔ	TO40	A
14#	2SB345	165m	17k†	3.3m	ØJ	32		10	100m	10uØ	5.0	2.0m	125					A	TO1	
15#	2SB346	165m	17k†	3.3m	ØJ	32		10	100m	10uØ	5.0	2.0m	220					A	TO1	
16	2N2428	165m	1.2MΔ	303u	ØJ	32	32 §	10	30m	10uØ	5.0	2.0m	120					A	TO1	A
17#	2SB371	165m	2.0M	3.3m	ØJ	32		10	200m	15uØ	.5Ø	50m	125 †					A	TO1	
18	2N2429	165m	2.3M§	303u	ØJ	32	30 §	10	100m	10uØ	5.0	2.0m	40				50pØ	A	TO1	A
19	JAN2N1008B	167m	500kΔ	2.2m	#S	60	55 §	20	300m	15u	5.0Ø	10mØ	40 Δ		800 Ø		50pØ		TO5	A
20	2N1008	167m	1.0M	2.8m	#J	20			300m		5.0Ø	10mØ	90	300u	600	10			TO5	A
21	2N1008A	167m	1.0M	2.8m	#J	40			300m		5.0Ø	10mØ	90	300u	600	10			TO5	A
22	2N1008B	167m	1.0M	2.8m	#J	60			300m		5.0Ø	10mØ	90	300u	600	10			TO5	A
23#	AC132	167m	1.3M§	3.3m	ØJ	32	32	10	200m	10uØ	0.0	50mØ	115 †					A	TO1	
24#	2SB22	170m			ØJ	25		25	75m	15u	1.5Ø	30m	95					A	TO1	
25	2N464	170m	1.0M	2.9m	#J	45	40	12	100m	15uØ	6.0Ø	1.0m	26	17u	900	3.5		FA	TO5	A
26	2N465	170m	1.1M	2.9m	#J	45	30	12	100m	15uØ	6.0Ø	1.0m	45	18u	1.4k	4.3		FA	TO5	A
27	2N363	170m	1.5M	2.9m	#J	32	30	6.0	100m	15uØ	6.0Ø	1.0m	50					FA	TO5	A
28	2N466	170m	1.5M	2.9m	#J	35	20	12	100m	15uØ	6.0Ø	1.0m	90	20u	3.0k	6.5		FA	TO5	A
29	2N633	170m	1.5M	2.9m	#J	32	30 §	6.0	100m	25u	.5Ø	50m	60 †					FA	TO5	A
30	2N362	170m	2.0M	2.9m	#J	25	18	6.0	100m	15uØ	6.0Ø	1.0m	90					FA	TO5	A
31	2N360	170m	2.5M	2.9m	#J	32	30 §	6.0	200m	15uØ	1.0Ø	50m	100 †					FA	TO5	A
32	2N361	170m	2.5M	2.9m	#J	32	30 §	6.0	200m	15uØ	1.0Ø	50m	50 †					FA	TO5	A
33	2N413	170m	2.5M	2.8m	#J	30	18	20	200m	5.0uØ	6.0Ø	1.0m	30	600nb	25	5.0	12p	FAØ	TO5	A§
34	2N632	170m	2.5M	2.9m	#J	30	24 §	6.0	100m	25u	.5Ø	50m	120 †					FA	TO5	A
35	2N467	170m	2.7M	2.9m	#J	35	15	12	100m	15uØ	6.0Ø	1.0m	180	22u	5.5k	6.2		FA	TO5	A
36	2N359	170m	3.5M	2.9m	#J	25	18 §	6.0	200m	15uØ	1.0Ø	50m	200 †					FA	TO5	A
37	2N631	170m	3.5M	2.9m	#J	25	18 §	6.0	100m	25u	6.0Ø	1.0m	200 †					FA	TO5	A
38	2N425†	170m	4.0M	2.9m	#J	30	20	20	400m	4.0uØ	.25Ø	1.0mΔ	30 †			5.5	14p	FA	TO5	A
39	2N426†	170m	6.0M	2.9m	#	30	18	20	400m	4.0uØ	.25Ø	1.0mΔ	40 †				14p	FA	TO5	A
40	2N414	170m	7.0M	2.8m	#J	30	15	20	200m	5.0uØ	6.0Ø	1.0m	60	620nb	25	5.0	12p	FAØ	TO5	A
41	2N416	170m	10M	2.8m	#J	30	12	20	200m	5.0uØ	6.0Ø	1.0m	80	650nb	25	7.0	12p	FAØ	TO5	A
42	2N1171	170m	10.MΔ	2.9m	#J	30	12	20	400m	5.0uØ	.25Ø	1.0mΔ	30 †Δ				14p	FAΔ	TO5	A
43	2N427†	170m	11.M	2.9m	#	30	15	20	400m	4.0uØ	.25Ø	1.0mΔ	55 †				14p	FA	TO5	A
44	2N428†	170m	17.M	2.9m	#J	30	12	20	400m	4.0uØ	.25Ø	1.0mΔ	80 †				14p	FA	TO5	A
45	2N417	170m	20M	2.8m	#J	30	10	20	200m	5.0uØ	6.0Ø	1.0m	140	770nb	26	11	12p	FA	TO5	A
46	2N1017	170m	20.M	2.9m	#S	30	10	20	400m	25u	.25Ø	10mΔ	100 †				12p	FAΔ	TO5	A
47	2N1018	170m	25.M	2.9m	#J	30	6.0	20	400m	4.0uØ	.25Ø	1.0mΔ	140 †				12p	FAΔ	TO5	
48#	OC602SP	175m		5.9m		40		10	500m	30u	6.0	1.0m	25					A	X12	
49#	OC604SP	175m		5.9m		40		10	500m	30u	6.0	1.0m	45					A	X12	
50	2N291	180m		4.0m	*A	25			200m	25u	.5Ø	100m	45					A	OV7	
51#	OC77M	180m	.35M§			60		10	125m			125mØ	25 †Δ					A	TO5	
52	2N402	180m	600k	3.0m	#J	25		10	150m	15u	9.0	1.0m	25	600nb	33	2.0	40p	F	TO5	A
53	2N612	180m	600k	3.0m	#J	25		10	150m	25u	9.0	1.0m	25	600nb	33	2.0	40p	F	TO5	A
54	2N403	180m	850k	3.0m	#J	25		10	200m	15u	9.0	1.0m	35	200nb	30	3.0	40p	F	TO5	A
55	2N613	180m	850k	3.0m	#J	25		10	200m	25u	9.0	1.0m	35	200nb	30	3.0	40p	F	TO5	A
56	2N61	180m	1.0M	3.0m	#J	25	20	10	200m	15u		100mØ	45 †				40p	F	TO5	A
57	2N61A	180m	1.0M	3.0m	#J	40	20	10	200m	15u		100mØ	45 †				40p	F	TO5	A
58	2N61B	180m	1.0M	3.0m	#J	50	20	10	200m	15u		100mØ	45 †				40p	F	TO5	A
59	2N61C	180m	1.0M	3.0m	#J	60	20	10	200m	15u		100mØ	45 †				40p	F	TO5	A
60	2N611	180m	1.0M	3.0m	#J	25	20	10	200m	25u		100mØ	45 †				40p	F	TO5	A
61#	2SB378	180m	1.3MΔ		*J	18	16 §		150m	10u	1.0Ø	20mØ	42 †	500nb	27	3.5		A	TO5	
62	2N60	180m	1.5M	3.0m	#J	25	20	10	200m	15u		100mØ	65 †				40p	F	TO5	A
63	2N60A	180m	1.5M	3.0m	#J	40	20	10	200m	15u		100mØ	65 †				40p	F	TO5	A
64	2N60B	180m	1.5M	3.0m	#J	50	20	10	200m	15u		100mØ	65 †				40p	F	TO5	A
65	2N60C	180m	1.5M	3.0m	#J	60	20	10	200m	15u		100mØ	65 †				40p	F	TO5	A
66	2N610	180m	1.5M	3.0m	#J	25	20	10	200m	25u		100mØ	65 †				40p	F	TO5	A
67#	2SB379	180m	1.5MΔ		*J	18	16 §		150m	10u	1.0Ø	20mØ	84 †	500nb		5.0		A	TO5	
68#	2SB380	180m	1.7MΔ		*J	18	16 §		150m	10u	1.0Ø	20mØ	169 †	300nb		10		A	TO5	
69	2N59	180m	1.8M	3.0m	#J	25	20	10	200m	15u		100mØ	90 †				40p	F	TO5	A
70	2N59A	180m	1.8M	3.0m	#J	40	20	10	200m	15u		100mØ	90 †				40p	F	TO5	A
71	2N59B	180m	1.8M	3.0m	#J	50	20	10	200m	15u		100mØ	90 †				40p	F	TO5	A
72	2N59C	180m	1.8M	3.0m	#J	60	20	10	200m	15u		100mØ	90 †				40p	F	TO5	A
73	2N609	180m	1.8M	3.0m	#J	25	20	10	200m	25u		100mØ	90 †				40p	F	TO5	A
74	2N1681†	180m	5.0MΔ	2.4m	#J	30	15	20	200m	25u	.25Ø	10mØ	75 †				20pØ	A	TO5	A
75	AT209	180m	7.0M	2.8m	#J	40	40 Ø	25	250m	14uØ	6.0	1.0mØ	200				9.0p	A	TO1	
76	AT210	180m	7.0M	2.8m	#J	30	30 Ø	25	250m	5.0uØ	6.0	1.0mØ	200				10p	AØ	TO1	
77	2N1313	180m	8.0MΔ	2.9m	#J	30	15	20	400m		.25Ø	1.0mØ	83 Δ				12p	A	TO5	A
78#	AF107	180m*	330MØ	4.0m	#J	30		1.0	70m	18u	10Ø	10mØ	60				1.2p	MEØ	R23	
79#	AF108	180m*	400MØ	4.0m	#J	30		1.0	70m	18u	10Ø	10mØ	60				1.2p	MEØ	R23	
80#	AFY18	180m*	600M§	4.0m	#J	30	15	1.0	100m	10uØ	10Ø	10mØ	220				2.3p	EMØ	TO5	
81#	AT270	185m	5.0M	2.9m	#J	40	40 Ø	24	250m	20uΔ	.5Ø	10mØ	60 †					A	TO1	
82#	AT275	185m	5.0M	2.9m	#J	25	25 Ø	10	250m	20uΔ	.5Ø	10mØ	60 †					A	TO1	
83#	AC134	185m	7.0M	2.9m	#J	20	20 Ø	25	250m	14uØ	6.0Ø	1.0mØ	70				7.0p	A	TO1	
84#	AC191	185m	7.0M	2.9m	#J	32	32 Ø	25	250m	5.0u	6.0Ø	1.0mØ	100				7.0p	AØ	TO1	
85#	AC192	185m	7.0M	2.9m	#J	32	32 Ø	10	250m	14uØ	6.0Ø	1.0mØ	100				7.0p	AØ	TO1	
86	2N573	200m		2.8m	S	40	30 §	25	250m	40u	12Ø	2.0mØ	150				40p	A	TO5	A
87	2N994†	200m		2.7m	$S	15	6.0	4.0	150m	3.0uØ	.25Ø	10mØ	45 †Δ				6pØ		TO18	AØ
88	2N1954†	200m		2.9m	#S	60	20	20	200m	20uØ	.5Ø	20mØ	30 †Δ						TO5	A
89	2N1955†	200m		2.9m	#S	60	20	20	200m	20uØ	.5Ø	20mØ	30 †Δ						TO5	A
90	2N1956†	200m		2.9m	#S	60	20	20	200m	20uØ	.5Ø	20mØ	30 †Δ						TO5	A
91	2N1957†	200m		2.9m	#S	60	20	20	200m	20uØ	.5Ø	20mØ	30 †Δ						TO5	A
92#	2SB67AH	200m				60	30	60	30m	10u	6.0Ø	1.0m	50 Δ	22u	2.5k	3.5		A	TO7	
93#	2SB67H	200m				55	30	55	30m	10u	6.0Ø	1.0m	50 Δ	22u	2.5k	3.5		A	TO7	
94#	2SB370	200m				2.5	25 Ø	6.0	500	20m	1.0Ø	150mΔ	70 †Δ					A	TO1	
95#	2SB370A	200m				32	32 Ø	12	500	20m	1.0Ø	150mΔ	70 †Δ					A	TO1	
96#	NKT270	200m		3.1m	#J	30		5.0	125m	10uØ	4.5Ø	1.0mØ	35 Δ						TO1	A
97	JAN2N331	200m	400kΔ	2.7m	#S	30	16	12	200m	10u	6.0Ø	1.0mØ	30 Δ	1.0uØb	50 Ø		50pØ		TO5	A
98	2N2042	200m	500kΔ	2.6m	#J	105	105	75	200m	25u	6.0Ø	1.0mØ	80	550nb	40		25pØ	A	TO5	A
99	2N2042A	200m	500kΔ	2.7m	#S	105	105 Ø	75	200m	25u	6.0	1.0m	20 Δ	7.0uØb	50 Ø		25pØ		TO5	A
100	MA885	200m	500kΔ	2.6m	#J	50	50 Ø	15	500m	100u	6.0Ø	1.0m	15 Δ	7.0uØb	40 Ø		25p	A	TO5	A
101	2N650A	200m	750kΔ	2.6m	#C	45	30	30	500m	50u	6.0Ø	1.0m	50	650nb	31		25pØ	A	TO5	A
102	JAN2N650A	200m	750kΔ	2.6m	#S	45	30	30	500m	50u	6.0Ø	1.0m	30 Δ	700nØb	37 Ø	8.0 Ø	25pØ		TO5	A
103	2N2043	200m	750kΔ	2.6m	#J	105	105	75	200m	25u	6.0Ø	1.0mØ	180	550nb	40		25pØ	A	TO5	A
104	2N2043A	200m	750kΔ	2.7m	#S	105	105 Ø	75	200m	25u	6.0	1.0m	45 Δ	1.0uØb	50 Ø		25pØ		TO5	A
105	MA881	200m	750kΔ	2.6m	#J	60	60 Ø	15	500m	100u	6.0Ø	1.0m	30 Δ	100nØb	40 Ø		25p	A	TO5	A
106	MA886	200m	750kΔ	2.6m	#J	50	50 Ø	15	500m	100u	6.0Ø	1.0m	30 Δ	1.0uØb	40 Ø		25p	A	TO5	A
107	2N186A	200m	.80M	3.3m	#J	25	25 §	5.0	200m	16u	1.0Ø	100m	24 †		1.2k		40p		R32	
108	2N189	200m	800k	3.3m	#J		25 §		200m	16u	5.0	1.0m	32	1.0ub	29	4.0	40p	A	R32	
109#	NKT210	200m	.90MΔ	3.1m	#J	45	30	10	500m	10uØ	0.0Ø	25mØ	50 †Δ				60pØ		TO1	A
110#	NKT211	200m	.90MΔ	3.1m	#J	32	30	101	000m	10uØ	0.0Ø	50mØ	40 †Δ				60pØ		TO1	A

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	NKT212	200m	.90MΔ	3.1m	#J	32	32 §	10	500m	10uØ	0.0Ø	50mØ	50 †Δ						TO1	A
2#	NKT213	200m	.90MΔ	3.1m	#J	32	32 §	10	250m	10uØ	4.5Ø	1.0mØ	50 Δ				60pØ		TO1	A
3#	NKT214	200m	.90MΔ	3.1m	#J	32	32 §	10	250m	10uØ	4.5Ø	1.0mØ	30 Δ				60pØ		TO1	A
4#	NKT215	200m	.90MΔ	3.1m	#J	32	32 §	10	250m	10uØ	4.5Ø	1.0mØ	15 Δ				60pØ		TO1	A
5#	NKT216	200m	.90MΔ	3.1m	#J	32	32 §	10	250m	10uØ	4.5Ø	1.0mØ	50 Δ				60pØ		TO1	A
6#	NKT217	200m	.90MΔ	3.1m	#J	60	40	10	500m	10uØ	0.0Ø	25mØ	50 †Δ				60pØ		TO1	A
7#	NKT219	200m	.90MΔ	3.1m	#J	32	32 §	10	250m	10uØ	4.5Ø	1.0mØ	85 Δ				60pØ		TO1	A
8	2N187A	200m	1.0M	3.3m	#J	25	25 §	5.0	200m	16u	1.0Ø	100m	36 †		2.0k		40p		R32	
9	2N190	200m	1.0M	3.3m	#J		25 §		200m	16u	5.0	1.0m	42	800nb	29	4.0	40p	A	R32	
10	2N322	200m	1.0MΔ		#J	18	18 §	5.0	200m	16uΔ	1.0Ø	20mØ	34 †Δ				35pØ	A	TO5	A§
11	2N651A	200m	1.0MΔ	2.6m	#C	45	30	30	500m	50u	6.0Ø	1.0m	85	600nb	34		25pØ	A	TO5	A
12	JAN2N651A	200m	1.0MΔ	2.6m	#S	45	30	30	500m	50u	6.0Ø	1.0m	50 Δ	700nØb	37 Ø	10 Ø	25pØ		TO5	A
13#	2SB415	200m	1.0M	3.3m	#J	32	32 §	6.0	1	14uØ	0.0	300m	70 †					A	TO1	A
14#	2SB494	200m	1.0M	5.0m	#J	25	18	6.0	1	20uØ	1.0Ø	150mØ	38 †Δ					A	TO1	A
15#	2SB495	200m	1.0M	5.0m	#J	25	18	6.0	1	20uØ	1.0Ø	150mØ	110 †					A	TO1	A
16#	2SB495A	200m	1.0M	5.0m	#J	32	25	6.0	1	20uØ	1.0Ø	150mØ	110 †					A	TO1	A
17	MA100	200m	1.0MΔ	2.7m	#J	60	60 Ø	15	500m	100u	6.0Ø	1.0m	50 Δ				25pØ	A	TO5	A
18	MA882	200m	1.0MΔ	2.6m	#J	60	60 Ø	15	500m	100u	6.0Ø	1.0m	50 Δ	100nØb	40 Ø		25p	A	TO5	A
19	MA887	200m	1.0MΔ	2.6m	#J	50	50 Ø	15	500m	100u	6.0Ø	1.0m	50 Δ	1.0uØb	40 Ø		25p	A	TO5	A
20#	NKT271	200m	1.0M	3.1m	#J	15	15 §	5.0	500m#	10uØ	1.5Ø	50mØ	50 †Δ						TO1	A
21#	NKT272	200m	1.0M	3.1m	#J	15	15 §	5.0	250m	10uØ	4.5Ø	1.0mØ	35 Δ						TO1	A
22#	NKT274	200m	1.0M	3.1m	#J	15	15 §	5.0	250m	10uØ	4.5Ø	1.0mØ	85 Δ						TO1	A
23#	NKT275	200m	1.0M	3.1m	#J	15	15 §	5.0	250m	10uØ	4.5Ø	1.0m	30 Δ						TO1	A
24	2N188A	200m	1.2M	3.3m	#J	25	25 §	5.0	200m	16u	1.0Ø	100m	54 †		2.6k		40p		R32	
25	2N191	200m	1.2M	3.3m	#J		25 §		200m	16u	5.0	1.0m	67	600nb	29	4.0	40p	A	R32	
26	2N652A	200m	1.2MΔ	2.6m	#C	45	30	30	500m	50u	6.0Ø	1.0m	160	550nb	35		25pØ	A	TO5	A
27	JAN2N652A	200m	1.2MΔ	2.6m	#S	45	30	30	500m	50u	6.0Ø	1.0m	100 Δ	700nØb	37 Ø	12 Ø	25pØ		TO5	A
28#	2SB167	200m	1.2M	3.3m	#J	20	20 Ø	2.5	500m	20uØ	6.0Ø	1.0m	80	38u	2.4k	8.9		A	TO1	
29#	2SB431	200m	1.2M	3.3m	#J	32	32 Ø	12	500m	20uØ	6.0Ø	1.0m	80	38u	2.4k	8.9		A	TO1	
30	MA883	200m	1.2MΔ	2.6m	#J	60	60 Ø	15	500m	100u	6.0Ø	1.0m	100 Δ	100nØb	40 Ø		25p	A	TO5	A
31	MA888	200m	1.2MΔ	2.6m	#J	50	50 Ø	15	500m	100u	6.0Ø	1.0m	100 Δ	1.0uØb	40 Ø		25p	A	TO5	A
32#	SFT351	200m	1.2M	3.3m	#J	24		12	150m	15u	6.0Ø	1.0mØ	30	20u	1.0k	2.7	32p	A	TO1	
33	2N241A	200m	1.3M	4.0m	ØJ	25	25 §	5.0	200m	16u	1.0Ø	100mØ	73 †		4.0k		40p		R32	
34#	SFT321	200m	1.3M	3.3m	#J	24		12	250m	15u	1.0Ø	100mØ	30 †				32p	A	TO1	
35	2N192	200m	1.5M	5.0m	#J		25 §		200m	16u	5.0	1.0m	90	500nb	29	4.0	40p	A	R32	
36	2N323	200m	1.5MΔ		#J	18	18 §	5.0	200m	16uΔ	1.0Ø	20mØ	53 †Δ				35pØ	A	TO5	A§
37	2N519	200m	1.5M	2.6m	#S	15	15	10	200m	2.0uØ	4.5Ø	1.0m	25	700nb	30	3.0	12p	A	TO5	A
38	2N650	200m	1.5M	2.6m	#J	45	30 §	30	500m	50u	6.0Ø	1.0m	49	650nb	32		10p	A	TO5	A
39	2N653	200m	1.5M	2.6m	#J	30	25	25	250m	15uØ	6.0Ø	1.0mØ	49		1.8k		10p	A	TO5	A
40	2N1186	200m	1.5M	2.6m	#J	60	45 §	30	500m	50u	6.0Ø	1.0mØ	49	500nb	32		10p	Δ	TO5	A
41	2N1191	200m	1.5M	2.9m	#J	40	25 §	25	200m	15uØ	6.0Ø	1.0m	40		1.4k		20p	AΔ	TO5	A
42	2N1451	200m	1.5M	3.3m	#J	45	20	10	400m	15u	2.0Ø	20mØ	45 †	1.0ub	40	3.0	20p	A	TO5	
43#	2SB263	200m	1.5M	3.3m	#J	20	18	2.5	150m	14uØ	6.0Ø	1.0m	60	19u	1.6k	4.3		A	TO1	
44#	2SB324	200m	1.5M§	3.3m	#J	32		10	500m	10uØ	1.0Ø	300mØ	90 †					A	TO1	
45#	SFT322	200m	1.6M	3.3m	#J	24		12	250m	15u	1.0Ø	100mØ	50 †				32p	A	TO1	A
46#	SFT352	200m	1.6M	3.3m	#J	24		12	150m	15u	6.0Ø	1.0mØ	50	27u	1.5k	3.2	32p	A	TO1	A
47	MA884	200m	1.7MΔ	2.6m	#J	60	60 Ø	15	500m	100u	6.0Ø	1.0m	190 Δ	1.0uØb	40 Ø		25p	A	TO5	A
48	MA889	200m	1.7MΔ	2.6m	#J	50	50 Ø	15	500m	100u	6.0Ø	1.0m	190 Δ	1.0uØb	40 Ø		25p	A	TO5	A
49	TR383	200m	1.8M	3.3m	#J	25		10	200m	25u	1.0Ø	150mØ	72 †				20p		TO5	
50	2N324	200m	2.0MΔ		#J	18	18 §	5.0	200m	16uΔ	1.0Ø	20mØ	72 †Δ				35pØ	A	TO5	A§
51	2N651	200m	2.0M	2.6m	#J	45	30 §	30	500m	50u	6.0Ø	1.0m	80	600nb	32		10p	A	TO5	A
52	2N654	200m	2.0M	2.6m	#J	30	25	25	250m	15uØ	6.0Ø	1.0mØ	80		3.1k		10p	A	TO5	A
53	2N1187	200m	2.0M	2.6m	#J	60	45 §	30	500m	50u	6.0Ø	1.0mØ	80	600nb	32		10p	Δ	TO5	A
54	2N1192	200m	2.0M	2.9m	#J	40	25 §	25	200m	15uØ	6.0Ø	1.0m	75		2.4k		20p	AΔ	TO5	A
55	2N1446	200m	2.0M	3.3m	#J	45	25	15	400m	10uØ	6.0Ø	1.0mØ	30	600nb	25	300m	20p	AΔ	TO5	A
56#	SFT325	200m	2.0M§	3.3m	#S	32	16	12	500m	25uØ	6.0	5.0m	150		1.2k			A	X47	
57	2N1452	200m	2.2M	3.3m	#J	45	20	10	400m	15u	2.0Ø	20mØ	60 †	100nb	40	4.0	20p	A	TO5	A
58#	SFT353	200m	2.4M	3.3m	#J	24		12	150m	15u	6.0Ø	1.0mØ	80	40u	2.3k	3.8	32p	A	TO1	A
59	2N508	200m	2.5MΔ	3.3m	#J	18	18 §	5.0	200m	7.0uØ	1.0Ø	20mØ	99 †Δ				35pØ	A	TO5	A§
60	2N652	200m	2.5M	2.6m	#J	45	30 §	30	500m	50u	6.0Ø	1.0m	130	550nb	32		10p	A	TO5	A
61	2N655	200m	2.5M	2.6m	#J	30	25	25	250m	15uØ	6.0Ø	1.0mØ	130		5.7k		10p	A	TO5	A
62	2N1188	200m	2.5M	2.6m	#J	60	45 §	30	500m	50u	6.0Ø	1.0mØ	130	550nb	32		10p	Δ	TO5	A
63	2N1193	200m	2.5M	2.9m	#J	40	25 §	25	200m	15uØ	6.0Ø	1.0m	160		5.4k		20p	AΔ	TO5	A
64#	SFT323	200m	2.6M	3.3m	#J	24		12	250m	15u	1.0Ø	100mØ	85 †					A	TO1	A
65	2N1185	200m	3.0M	2.6m	#J	45	30 §	30	500m	50u	6.0Ø	1.0mØ	260	500nb	32		10p	Δ	TO5	A
66	2N1194	200m	3.0M	2.6m	#J	40	25 §	25	200m	15uØ	6.0Ø	1.0m	280		8.4k		20p	Δ	TO5	A
67	2N1447	200m	3.0M	3.3m	#J	45	25	15	400m	10uØ	6.0Ø	1.0m	45	620nb	25	500m	20p	AΔ	TO5	A
68	2N1706	200m	3.0M	2.7m	#J	25	18 §	5.0	400m	10uØ	5.0Ø	10mØ	90	400u	450	6.9	20p	A	TO5	A§
69	2N1707	200m	3.0M	2.7m	#J	30	25 §	10	400m	15uØ	5.0Ø	10mØ	95	3.0ub	4.0	4.5	20p	A	TO5	A§
70	MA1703	200m	3.0MΔ	2.6m	#J	25	25 §	25	500m	15u	1.0Ø	100mØ	100 †Δ	b	35 Ø		20pØ	AΔ	TO5	A
71	MA1706	200m	3.0MΔ	2.6m	#J	15	15 §	4.5	500m	15u	1.0Ø	100mØ	100 †Δ	b	37 Ø		20pØ	AΔ	TO5	A
72	2N1413	200m	3.2M	3.3m	#J	35	25 §	10	200m	12uØ	5.0	1.0m	30	650nb	29	4.8	26p		TO5	A§
73	2N1189	200m	3.5M	2.6m	#J	45	30 §	15	500m	50u	6.0Ø	1.0m	120	100nb	31		12p	A	TO5	A
74	2N1353†	200m	3.5M	3.3m	#J	15	10	10	200m	6.0uØ	1.0Ø	10mØ	70 †	b		100	12p	A	TO5	A
75	2N1414	200m	3.6M	3.3m	#J	35	25 §	10	200m	12uØ	5.0	1.0m	44	620nb	29	5.2	26p		TO5	A§
76	2N1415	200m	4.0M	3.3m	#J	35	25 §	10	200m	12uØ	5.0	1.0m	64	550nb	29	5.7	26p		TO5	A§
77	2N1448	200m	4.0M	3.3m	#J	45	25	15	400m	10uØ	6.0	1.0m	65	650nb	25	700m	20p	AΔ	TO5	A
78	2N1705	200m	4.0M	2.7m	#J	18	12 §	5.0	400m	10uØ	6.0Ø	1.0mØ	110	500nb	30	3.0	20p	AØ	TO5	A§
79	2N3427	200m	4.0MΔ	2.7m	#S	45	30 §	30	500m	50u	6.0Ø	1.0m	200 Δ	500nØb	35 Ø		20pØ		TO5	A
80#	AC182	200m	4.0M§	3.3m	#S	32	18 §	10	150m	15uØ	6.0	1.0m	110 *					A	R134	
81	MA1707	200m	4.0MΔ	2.6m	#J	15	15 §	4.5	500m	15u	1.0Ø	100mØ	150 †Δ	b	37 Ø		20pØ	AΔ	TO5	A
82	2N1175	200m	4.2M	3.3m	#J	35	25 §	10	200m	12uØ	5.0	1.0m	80	450nb	28	5.9	26p	AØ	TO5	A§
83	2N1175A	200m	4.2M	3.3m	#J	35	25 §	10	200m	12uØ	5.0	1.0m	80	450nb	28	5.9	26p	AØ	TO5	A§
84	2N395†	200m	4.5M	3.3m	#S	30	15 §	20	200m	6.0uØ	1.0Ø	10mØ	85 †			90	12p	A	TO5	A§
85	2N508A	200m	4.5M	3.3m	#J	30	30 Ø	10	200m	7.0uØ	1.0Ø	20mØ	120 †	400nb	28	7.0	18p	AØ	TO5	A§
86	2N1190	200m	4.5M	2.6m	#J	45	30 §	15	500m	50u	6.0Ø	1.0m	190	100nb	31		12p	A	TO5	A
87	2N1354†	200m	4.5M	3.3m	#J	30	15	20	200m	6.0uØ	1.0Ø	10mØ	70 †	b		90	12p	A	TO5	A
88	2N396A†	200m	5.0M	3.3m	#S	30	20	20	200m	6.0uØ	1.0Ø	10m	30 †Δ				20pØ		TO5	A§
89	JAN2N396A	200m	5.0MΔ	3.3m	#S	30	20	20	200m	100u	1.0Ø	10mØ	30 †Δ				20pØ		TO5	A
90	2N1280	200m	5.0M	3.3m	#J	16		10	400m	10u	1.0Ø	20mØ	60 †				10p		TO5	A
91	2N1284	200m	5.0M	3.3m	#J	20		10	400m	6.0u	1.0Ø	10mØ	90 †				15p		TO5	A
92	2N1348	200m	5.0M	3.3m	#	40		25	400m	10u	.30Ø	10mØ	95 †				12p	A	TO5	A
93	2N1356†	200m	5.0MΔ	2.6m	#J	30	20	20	200m	6.0uØ	1.0Ø	10mØ	80 †			1.0	12p	A	TO5	A
94	2N1449	200m	5.0M	3.3m	#J	45	25	15	400m	10uØ	6.0	1.0m	80	770nb	25	1.1	20p	AΔ	TO5	
95	2N1471	200m	5.0M	3.3m	#J	12		7.0	200m	5.0u	6.0Ø	1.0mØ	160 †				18p		TO5	A
96	2N3428	200m	5.0MΔ	2.7m	#S	45	30 §	30	500m	50u	6.0Ø	1.0m	350 Δ	500nØb	35 Ø		20pØ		TO5	A
97	MA1704	200m	5.0MΔ	2.6m	#J	25	25 §	25	500m	15u	1.0Ø	100mØ	150 †Δ	b	35 Ø		20pØ	AΔ	TO5	A
98	2N414B	200m	7.0M	3.3m	#J	30		20	400m	6.0u	6.0	1.0m	60				12p		TO5	A
99	2N414C	200m	7.0M	3.3m	#J	30		20	400m	6.0u	6.0	1.0m	60				12p		TO5	A
100	2N1281	200m	7.0M	3.3m	#J	16		10	400m	10u	1.0Ø	20mØ	90 †				10p		TO5	A
101	2N1350	200m	8.0M	3.3m	#J	50		25	400m	20u	.30Ø	10mØ	95 †				12p	A	TO5	A
102	2N1351	200m	8.0M	3.3m	#	40		25	400m	10u	.30Ø	10mØ	65 †				12p	A	TO5	A
103	2N1355†	200m	8.0M	3.3m	#J	30	20	20	200m	6.0uØ	1.0Ø	10mØ	80 †	b		100	12p	A	TO5	A
104	2N2172	200m	8.0M	2.6m	#S	20		10	400m	6.0u	5.0	1.0m	65	600nb	28	8.0	12p	A	TO5	A
105	2N1282	200m	10.M	3.3m	#J	16		10	400m	10u	1.0Ø	20mØ	100 †				10p		TO5	A
106	2N1316†	200m	10.MΔ	3.3m	#J	30	15	20	400m	25u	.25Ø	1.0mΔ	100 †				14p	A	TO5	A
107	2N1317†	200m	10.MΔ	3.3m	#J	20	12	15	400m	25u	.25Ø	1.0mΔ	95 †				14p	A	TO5	A
108	2N1318	200m	10MΔ	3.3m	#J	10	6.0	8.0	400m	7.0u	25Ø	1.0mΔ	85 †				14p	Δ	TO5	A
109	2N1349	200m	10.M	3.3m	#J	40		25	400m	10u	.30Ø	10mØ	110 †				12p		TO5	A
110	2N397†	200m	12.M	3.3m	#S	30	15 §	20	200m	6.0uØ	1.0Ø	10mØ	95 †			110	12p	A	TO5	A§

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N1357†	200m	12M	3.3m	#J	30	15	20	200m	6.0uØ	1.0Ø	10mØ	85 †	b		110	12p	A	TO5	A
2	2N522	200m	18M	2.6m	#S	15	8.0	10	200m	2.0uØ	4.5Ø	1.0m	120	700nb	30	14	12p	A	TO5	A
3	2N523	200m	25M	2.6m	#S	15	6.0	10	200m	2.0uØ	4.5Ø	1.0	200	700nb	30	20	12p	A	TO5	A
4	2N2207	200m	175M	4.0m	ØJ	70		.50	50m		6.0Ø	10mØ	36 †Δ					AD	TO7	H
5	2N1204A†	200m	220M§Δ	2.6m	#S	20	15	4.0	500m	7.0uØ	10Ø	20m	1.1 Δ				8pØ		TO39	AØ
6	2N1204†	200m	320M§	2.7m	#S	20	15	4.0	500m	7.0uØ	1.5Ø	400mØ	35 †#				7.0p	AD	TO39	AØ
7#	2SB370AH	200m	1.4G			32	32 Ø	12	500	25m	1.0Ø	.15mØ	70 †Δ					A	TO1	
8#	AC120	210mØ	1.5M	20m	ØJ	20	20	10	300m	30u	5.0Ø	100mØ	50 †	550u	210	12	85p	A	TO1	
9	2N658†	210m	5.0M	2.9m	#J	30	18	12	1	5.0uØ	.35Ø	50mØ	50 †				12p	FA	TO5	A
10	2N662	210m	8.0M	2.9m	#J	30	14	12	1	5.0uØ	.35Ø	50mØ	70 †				12p	FAΔ	TO5	A
11	2N659†	210m	10.M	2.9m	#J	30	16	12	1	5.0uØ	.35Ø	50mØ	70 †				12p	FA	TO5	A
12	2N660†	210m	15.M	2.9m	#J	30	14	12	1	5.0uØ	.35Ø	50mØ	90 †				12p	FA	TO5	A
13	2N661†	210m	20.M	2.9m	#J	30	9.0	12	1	5.0uØ	.35Ø	50mØ	120 †				12p	FA	TO5	A
14	2N2541†	215m	10MT†Δ	2.9m	#S	30	14	12	1.0	20uØ	.35Ø	50mØ	60 †Δ				20pØ		TO5	AØ
15#	AC135	220m	1.5M	2.9m	#J	20	20 Ø	2.5	250m	14uØ		50m	70 †					A	TO1	
16#	AC136	220m	1.5M	2.9m	#J	40	40 Ø	2.5	250m	14uØ		50m	100 †					A	TO1	
17#	AC137	220m	1.5M	2.9m	#J	20	20 Ø	25	250m	14uØ	6.0Ø	1.0mØ	100					A	TO1	
18#	AC138	220m	1.5M	3.3m	#J	32	32 Ø	10	1.2	14uØ	6.0Ø	5.0mØ	100					A	TO1	
19#	AC138H	220m	1.5M	3.3m	#J	50		10	1.2	14uØ	6.0Ø	5.0mØ	100					A	TO1	
20#	AC139	220m	1.5M	3.3m	#J	32	32 Ø	10	1.2	14uØ		400m	80 †					A	TO1	
21#	AC142	220m	1.5M	3.3m	#J	32	32 Ø	10	1.2	14uØ		400m	80 †					A	TO1	
22#	AC142H	220m	1.5M	3.3m	#J	50		10	1.2	14uØ		400m	80 †					A	TO1	
23#	NKT281	220m	1.5M§	3.4m	#J	32	16	10	1.0	10uØ	0.0Ø	50mØ	55 †Δ				100p		TO1	A
24#	AF200	225m		2.2m	#J	25	25 Ø	.30	10m	10uØ	12Ø	1.0mØ	50 †					ME		
25#	AF201	225m		2.2m	#J	25	25 Ø	.30	10m	10u	12Ø	1.0mØ	50 †					ME		
26#	AF202L	225m		2.2m	#J	32	32 Ø	.30	30m	10u	12Ø	1.0mØ	50 †					ME		
27#	2SB178	225m	.70M		ØJ	20		6.0	300m	20uØ	1.0Ø	300m	65 †					A	R43	
28#	2SB178A	225m	700k	4.5m	ØJ	40			300m	20uØ	1.0Ø	300m	65 †					A	R43	
29#	2SB304	225m	1.0M	5.0m	ØJ	30	20	10	500m	15u	1.0Ø	50mØ	70 †					AΔ	TO5	
30#	2SB304A	225m	1.0M	5.0m	ØJ	45	30 §	15	500m	10uØ	1.0Ø	50mØ	70 †					AΔ	TO5	
31#	2SB376	225m	1.0M	4.5m	ØJ	20		6.0	300m	20uØ	.50	300m	50 †					A	R43	
32#	2SB427	225m	1.0M	5.0m	ØJ	45	30 §	15	500m	15u	1.0Ø	100mØ	60 †					AΔ	TO5	
33#	2SB428	225m	1.0M	5.0m	ØJ	45	30 §	15	500m	15u	1.0Ø	100mØ	90 †					AΔ	TO5	
34	2N460	225m	1.2M	3.0m	#J	45	35 §	10	400m	15u	5.0	1.0m	24	1.0ub	40	3.0	50p	A	TO5	A§
35#	SFT221	225m	1.3M	3.7m	#J	30	24 §	15	250m	15u	1.0Ø	100mØ	30 †					A	TO5	A§
36#	SFT251	225m	1.3M	3.7m	#J	30	24 §	15	150m	15u	6.0Ø	1.0mØ	30	20u	900	3.0	25p	A	TO5	
37	2N2431	225m	1.5M§	3.4m	#J	32	32	10	1	10uØ	0.0	40m	90 †				100pØ	A	TO1	A
38#	SFT241	225m	1.6M	3.7m	#J	45	35 §	25	500m	15u	1.0Ø	100mØ	45 †	25u	1.2k	4.0	25p	A	TO5	
39	2N319	225m	2.0M	3.7m	#J		20 §		200m#	16uØ	1.0Ø	20mØ	34 †				25p	A	TO5	A§
40#	ASY81	225m	2.0M	3.7m	#J	60	35 §	25	500m	15u	1.0Ø	100mØ	60 †	32u	1.6k	4.5	25p	A	TO5	
41#	SFT222	225m	2.0M	3.7m	#J	30	24 §	15	250m	15u	1.0Ø	100mØ	50 †					A	TO5	A§
42#	SFT243	225m	2.0M	3.7m	#J	60	35 §	25	500m	15u	1.0Ø	100mØ	60 †	32u	1.6k	4.5	25p	A	TO5	A§
43#	SFT252	225m	2.0M	3.7m	#J	30	24 §	15	150m	15u	6.0Ø	1.0mØ	50	30u	1.5k	4.2	25p	A	TO5	
44	2N320	225m	2.5M	3.7m	#J		20 §		200m#	16uØ	1.0Ø	20mØ	50 †				25p	A	TO5	A§
45#	SFT242	225m	2.5M	3.7m	#J	45	30 §	25	500m	15u	1.0Ø	100mØ	70 †	35u	2.0k	5.0	25p	A	TO5	
46	2N321	225m	3.0M	3.7m	#J		20 §		200m#	16uØ	1.0Ø	20mØ	80 †				25p	A	TO5	A§
47	2N381	225m	3.0M	3.0m	#J	50	25 §	20	400m	10uØ	5.0Ø	10mØ	60	420u	300	6.6	20p	AØ	TO5	A
48	2N1924	225m	3.0M	3.6m	#J	60	40 §	25	500m	10uØ	5.0Ø	1.0m	44	30u	1.4k	4.5	18p	A	TO5	A§
49#	AC184	225m	3.0M§	3.0m	#S	32	24 §	10	500m	15uØ	1.0Ø	200mØ	110 †*					A	R134	
50#	SFT253	225m	3.0M	3.7m	#J	30	20 §	15	150m	15u	6.0Ø	1.0mØ	80	45u	2.5k	5.5	25p	A	TO5	
51	2N1925	225m	3.5M	3.6m	#J	60	40 §	25	500m	10uØ	5.0Ø	1.0m	64	35u	2.0k	6.0	18p	A	TO5	A§
52	2N461	225m	4.0M	3.0m	#J	45	35 §	10	400m	15u	5.0	1.0m	49	1.0ub	30	3.0	50p	A	TO5	A§
53	2N1926	225m	4.0M	3.6m	#J	60	40 §	25	500m	10uØ	5.0Ø	1.0m	80	40u	2.5k	7.0	18p	A	TO5	A§
54#	SFT223	225m	4.0M	3.7m	#J	30	20 §	15	250m	15u	1.0Ø	100mØ	80 †					A	TO5	A§
55	2N383	225m	5.0M	3.0m	#J	50	25 §	20	400m	10uØ	5.0Ø	10mØ	115	380u	550	7.2	20p	AØ	TO5	A
56	2N524	225m	5.0MØ	3.0m	#J	45	30 §	15	500m	10uØ	5.0	1.0m	41 Ø	1.0uØb	36	10	40pØ	A	TO5	A§
57	2N524A	225m	5.0MØ	3.0m	#J	45	30 §	15	500m	10uØ	5.0	1.0m	41 Ø	1.0uØb	36	10	40pØ	A	TO5	A§
58	2N525	225m	5.5MØ	3.0m	#J	45	30 §	15	500m	10uØ	5.0	1.0m	64 Ø	1.0uØb	35	11	40pØ	A	TO5	A§
59	2N525A	225m	5.5MØ	3.0m	#J	45	30 §	15	500m	10uØ	5.0	1.0m	64 Ø	1.0uØb	35	11	40pØ	A	TO5	A§
60	2N526	225m	6.5MØ	3.0m	#J	45	30 §	15	500m	10uØ	5.0	1.0m	88 Ø	1.0uØb	33	12	40pØ	A	TO5	A§
61	JAN2N526	225m	6.5MØ	3.0m	#J	45	30 §	15	500m	10uØ	5.0	1.0m	44 Δ	1.0uØb	35 Ø	12 Ø	40pØ	A	TO5	A
62	2N526A	225m	6.5MØ	3.0m	#J	45	30 §	15	500m	10uØ	5.0	1.0m	88 Ø	1.0uØb	33	12	40pØ	A	TO5	A§
63	2N527	225m	7.0MØ	3.0m	#J	45	30 §	15	500m	10uØ	5.0	1.0m	120 Ø	900nØb	31	14	40pØ	A	TO5	A§
64	2N527A	225m	7.0MØ	3.0m	#J	45	30 §	15	500m	10uØ	5.0	1.0m	120 Ø	900nØb	31	14	40pØ	A	TO5	A§
65	2N2171	225m	7.5M	3.0m	#J	50	25 §	20	400m	10uØ	5.0Ø	10mØ	210	500u	850	7.5	20p	A	TO5	A§
66	PET8350	225m	150M§	2.3m	♦J	40	30	5.0	750m	.05u§	5.0Ø	10mØ	65	140u	250	2.0	5p§	PE	R110	A
67	PET8352	225m	150M§	2.3m	♦J	40	30	5.0	750m	.05u§	5.0Ø	10mØ	65	140u	250	2.0	5p§	PE	R110 a	A
68	PET8351	225m	200M§	2.3m	♦J	40	30	5.0	750m	.05u§	5.0Ø	10mØ	125	200u	400	2.0	5p§	PE	R110	A
69	PET8353	225m	200M§	2.3m	♦J	40	30	5.0	750m	.05u§	5.0Ø	10mØ	125	200u	400	2.0	5p§	PE	R110 a	A
70	AFY39	225m	500M§	2.2m	#J	32	32 Ø	.30	32m	.40uØ								ME	R96	
71	JAN2N537	225m	1.0G§Δ	3.0	#S	30		1.0		5.0uØ	10Ø	10m	10 Δ				2.8pØ		TO29	A
72	2N2173	240m		3.2m	#S	25	15	3.0	750m	10uØ	1.0Ø	200mØ	30 †Δ				6pØ		TO39	AØ
73#	2SB401	240m	.30M§		#J	40	32	10	300m	10uØ	.50Ø	300mØ	60 †					AΔ	TO5	
74#	2SB402	240m	.30M§		#J	60	60	10	300m	10uØ	.50Ø	300mØ	60 †					AΔ	TO5	
75#	2SB403	240m	.70M§		#J	40	32	20	300m	10uØ	.50Ø	300mØ	50 †					AΔ	TO5	
76	2N44	240m	1.0M	4.0m	#J	45	30 §	5.0	300m	16u	5.0	1.0m	25	900nb	31	4.0	40p	AØ	R32	
77	2N1056	240m	1.0M	4.0m	#S	75		15	100m	25u	75	1.0m	32				40p	AΔ	TO5	
78	2N43	240m	1.3M	4.0m	#J	45	30 §	5.0	300m	16u	1.0	1.0m	42	800nb	29	5.0	40p	AØ	R32	
79	2N43A	240m	1.3M	4.0m	#J	45	30 §	5.0	300m	16u	5.0	1.0m	42	800nb	29	5.0	40p	AØ	R32	
80	2N1057	240m	3.0MØ	4.0m	#J	45		5.0	300m	16u	1.0Ø	20mØ	58 †				40p	AΔ	R32	
81	2N1614	240m	3.0MØ	4.0m	#J	65	40 §	12	300m	25u	1.0Ø	20mØ	32 †	900nb	31	4.0	40p	AΔ	R32	
82	2N1384†	240m	35.M	4.0m	#A	30	30	1.0	500m	50u	.50Ø	200mØ	50 †					D	TO11	A
83#	SFT162	240m	70.M§	4.0m	#J	70		.50	10m	15u	12Ø	6.0mØ	50 Δ				3pØ	D	TO44	
84	2N270	250m		4.1m	ØJ	25		12	75m	16u	1.0Ø	150mØ	70 †					A	R27	
85	2N586	250m		4.2m	#A	45	25	12	250m	16u	.50	250mØ	55 †					AΔ	R27	
86	JAN2N1174	250m		3.3m	#S	35	20	35	200m	10uØ	10Ø	500u	50 Δ				2.5pØ		TO29	A
87	2N1273	250m		3.3m	#S	15	15 §	10	200m	14uØ	5.0Ø	1.0m	187 Ø						TO5	A
88	2N1274	250m		3.3m	#S	25	25 §	10	200m	14uØ	5.0Ø	1.0m	187 Ø						TO5	A
89	2N1370	250m		3.3m	#S	25	25 §	10	200m	14uØ	5.0Ø	1.0m	187 Ø						TO5	A
90	2N1371	250m		3.3m	#S	45	45 §	10	200m	14uØ	5.0Ø	1.0m	187 Ø						TO5	A
91	2N1372	250m		3.3m	#S	25	25 §	15	200m	7.0uØ	5.0Ø	1.0m	127 Ø						TO5	A
92	2N1373	250m		3.3m	#S	45	45 §	25	200m	7.0uØ	5.0Ø	1.0m	127 Ø						TO5	A
93	2N1374	250m		3.3m	#S	25	25 §	15	200m	7.0uØ	5.0Ø	1.0m	187 Ø						TO5	A
94	2N1375	250m		3.3m	#S	45	45 §	25	200m	7.0uØ	5.0Ø	1.0m	187 Ø						TO5	A
95	2N1376	250m		3.3m	#S	25	25 §	15	200m	7.0uØ	5.0Ø	1.0m	187 Ø						TO5	A
96	2N1377	250m		3.3m	#S	45	45 §	25	200m	7.0uØ	5.0Ø	1.0m	187 Ø						TO5	A
97	2N1378	250m		3.3m	#S	12	12 §	7.0	200m	7.0uØ	5.0Ø	1.0m	385 Ø						TO5	A
98	2N1379	250m		3.3m	#S	25	25 §	15	200m	7.0uØ	5.0Ø	1.0m	385 Ø						TO5	A
99	2N1380	250m		3.3m	#S	12	12 §	7.0	200m	14u	5.0Ø	1.0m	385 Ø						TO5	A
100	2N1381	250m		3.3m	#S	25	25 §	15	200m	14uØ	5.0Ø	1.0m	385 Ø						TO5	A
101	2N1382	250m		3.3m	#S	25	25 §	15	200m	14uØ	5.0Ø	1.0m	187 Ø						TO5	A
102	2N1383	250m		3.3m	#S	25	25 §	15	200m	14uØ	5.0Ø	1.0m	187 Ø						TO5	A
103#	2SB89	250m				25	25 Ø	12	150m	16u	6.0Ø	1.0mØ	55	20u	1.8k	3.3		A	TO7	
104#	2SB89A	250m				45		12	150m	50u	1.0	150m	65					A	R27	
105	2N2271	250m	.01MΔ		#J	20	15 §	10	500m	500u	1.5Ø	35mØ	75 †						TO5	A
106	2N226	250m	400k	3.3m	ØJ	30			150m	25u	.60Ø	100mØ	60 †	3.0ub	7.5		140p	A	TO25	A
107	2N227	250m	400k	Pair of 2N226 with hFE matched to within 20 percent.															TO25	A
108♦	JAN2N461	250m	500kΔ	3.3m	#J	45	35 §*	10	400m	10u	6.0	1.0m	31 Δ	1.5uØb	40 Ø		20pØ		RO81	A§
109	ET670	250m	.50MΔ	4.2m	#J	40		5.0	1.5 #	50uØ	1.5Ø	1 Ø	40 †Δ						R81a	A
110	2N224	250m	510k	3.3m	ØJ	25			150m	25u	.60Ø	100mØ	90 †	2.0ub	7.5		125p	A	TO25	A

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	[3] TYPE No.	[1] MAX. COLL. DISS. @25°C (W)	[2] fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L E D	C O D E
1	2N225	250m	510k	Pair of 2N224 with hFE matched to within 20 percent.															TO25		A
2	2N223	250m	600k	5.0m	*J		18		150m	20u	4.5Ø	2.0mØ	110	100nb	15	2.5	90p	A	TO25		A
3	2N1416	250m	600k	Pair of 2N223 with hFE matched to within 20 percent.															TO25		A
4#	2SB34	250m	.80M	4.2m	#J	20		2.5	150m	14uØ	6.0Ø	1.0m	85	22.u	2.4k	4.9		A	TO7		
5#	2SB38	250m	.80M	4.2m	#J	30	20 §	12	150m	16u	6.0Ø	1.0m	85 *	22.u	2.4k	4.9	45p	A	TO7		
6#	2SB199	250m	.80M	4.2m	#J	12		2.5	300m	14u	3.0Ø	1.0m	90	33u	2.6k	6.1		A	TO7		
7	2N398B	250m	1.0M	3.3m	#A	105	105 Ø	75	200m	6.0uØ	.25Ø	5.0mØ	20 †Δ					AΔ	TO5		A
8#	2SB189	250m	1.0M	5.0m	ØJ	25		12	250m	14uØ	1.0Ø	100m	70 †				35p	A	X5		
9	2SB476	250m	1.2M§	3.8m	#J	20	10	6.0	2	500u	0.0	2	75 †					A	TO39		
10#	2SB89AH	250m	1.5M			45	45 Ø	12	150m	50u	6.0Ø	1.0m	60	20u	1.8k	3.3		A	TO7		
11#	2SB89H	250m	1.5M			30	30 Ø	12	150m	12u	6.0Ø	1.0m	60	20u	1.8k	3.3		A	TO7		
12	2N597	250m	3.0MΔ	3.3m	#J	45	40 Ø	45	500m	25u	1.0Ø	100mØ	40 †Δ				20pØ	AΔ	TO5		AØ
13	2N2930†	250m	4.0M§Δ	3.3m	#S	30	12	20	500m	7.0uØ	.50Ø	10mØ	60 †Δ				20pØ		TO5		A
14	JAN2N598†	250m	5.6M§Δ	3.3m	#S	35	35 Ø	30		25u	1.0Ø	200mØ	50 †Δ				20pØ		TO5		AØ
15	2N1997	250m	6.0M	3.3m	#J	45		45	500m	25u	1.0Ø	100mØ	70 †				10p	AΔ	TO5		A
16	2N1478	250m	8.0M	3.3m	#J	30	20	20	500m	5.0uØ	1.0Ø	100mØ	70 †				15p	AΔ	TO9		AØ
17	2N2375	250m	9.0M	3.0m	#	35	35 Ø	35	500m	100u	12	2.0mØ	75	66u	1.4k	5.4	14p	A	TO5		A
18	2N2376	250m	9.0M		#	Matched pair of 2N2375													TO5		AØ
19	2N598†	250m	10.M	3.3m	#J	35	35 Ø	30	500m	25u	5.0Ø	3.0m	1.4 Δ				20pØ	A	TO5		AØ
20	2N599†	250m	10M§Δ	3.3m	#J	30	20 Ø	20	500m	25u	1.0Ø	200mØ	75 †Δ				20pØ	A	TO5		AØ
21	JAN2N599†	250m	10M§Δ	3.3m	#S	30	20 Ø	20		25u	1.0Ø	200mØ	75 †Δ				20pØ		TO5		Ø
22	2N1998	250m	10.M	3.3m	#J	35		30	500m	25u	1.0Ø	200mØ	95 †				10p	AΔ	TO5		A
23	2N2374	250m	15.M	3.0m	#	35	35 Ø	35	500m	100u	12	2.0mØ	140	90u	3.0k	8.7	14p	A	TO5		A
24	2N1999	250m	17.M	3.3m	#J	30		20	500m	25u	1.0Ø	200mØ	150 †				10p	AΔ	TO5		A
25#	ALZ10	250m	30M§	5.0m	ØJ	50		.70	250m	30u	6.0Ø	4.0mØ	40 Δ				15pØ		R95		Ø
26	2N1495†	250m	150M§Δ	3.3m	#S	40	25	4.0	500m	7.0uØ	.50Ø	200mØ	25 †Δ				6.5pØ		T09		AØ
27	JAN2N1195	250m	400M§Δ	3.3m	#S	30	20	1.0	40m	5.0uØ	10	10m	24 Δ	20uØb	10 Ø	30 Ø	2.0pØ		TO5		A
28	2N2096†	250m	400M§	3.3m	#S	25		4.0	500m	12uØ	1.5Ø	400mØ	40 †				15p	D	TO31		A
29	2N2097†	250m	400M§	3.3m	#S	40		4.0	500m	12uØ	1.0Ø	200mØ	70 †				15p	D	TO31		A
30	2N2099	250m	400M§	3.3m	#S	25		4.0	500m	12uØ	1.5Ø	400mØ	40 †				15p	D	TO9		A
31	2N2100†	250m	400M§	3.3m	#S	40		4.0	500m	12uØ	1.0Ø	200mØ	70 †				15p	D	TO9		A
32	2N1562	250m	450M§	3.3m	#J	25	25	2.0	250m	10uØ							7.0p	ME	R70		Ø
33	2N1561	250m	500M§	3.3m	#J	25	25	3.0	250m	10uØ							7.0p	ME	R70		Ø
34	MM380	250m	600M§	3.3m	#J	25	10	.30		10uØ	10Ø	3.0mØ	50 †				1.4p$		TO18		AØ
35#	2SA373	250m	640M			25	12	.50	150m	15u	10	5.0m	40 †				3.2p	EM	TO5		
36	2N382	255m	4.0M	3.0m	#J	50	25 §	20	400m	10uØ	5.0Ø	10mØ	90	400u	450	6.9	20p	AØ	TO5		A
37	AC178	260m	.01M†	4.0m	#J	20	15	10	700m	40uØ	2.0Ø	150mØ	60 †Δ					A	X9		
38#	ACY41†	260m	600k§	4.0m	#J	32	18	12	500m	100u	6.0Ø	1.0mØ	90					AØ	TO5	§	
39#	ACY40†	260m	800k§	4.0m	#J	32	18	12	500m	100u	6.0Ø	1.0mØ	45					AØ	TO5	§	
40#	ACY17†	260m	1.0M§	4.0m	#J	70	32	12	500m	100u	6.0Ø	1.0mØ	85					AØ	TO5	§	
41#	ACY18†	260m	1.0M§	4.0m	#J	50	30	12	500m	100u	6.0Ø	1.0mØ	60					AØ	TO5	§	
42#	ACY20	260m	1.0M§	4.0m	#J	40	20	12	500m	100u	6.0Ø	1.0mØ	85					AØΔ	TO5		§
43#	ACY22†	260m	1.0M§	4.0m	#J	20	15	12	500m	100u	6.0Ø	1.0mØ	75					AØ	TO5	§	
44#	ACY39†	260m	1.0M§	4.0m	#J	110	40	25	500m	100u	6.0Ø	1.0mØ	85					AØ	TO5	§	
45#	ACY44	260m	1.0M§	4.0m	#J	50	30	12	500m	100u	6.0Ø	1.0mØ	60					AØΔ	TO5	§	
46#	ACY19†	260m	1.3M§	4.0m	#J	50	30	12	500m	100u	6.0Ø	1.0mØ	140					AØ	TO5	§	
47#	ACY21	260m	1.3M§	4.0m	#J	40	20	12	500m	100u	6.0Ø	1.0mØ	140					AØΔ	TO5		§
48#	AC142H-K	260m	1.5M	4.0m	#J	50		10	1.2	14uØ		400m	80 †					A	TO1		
49#	AC142K	260m	1.5M	4.0m	#J	32	32 Ø	10	1.2	14uØ		400m	80 †					A	TO1		
50#	2SB381	270m	1.3M		#J	32	30 §		300m	10u	1.0Ø	20mØ	42 †	500nb	27	3.5		A	TO5		
51#	2SB377	270m	1.4MΔ		#J	32	30 §		150m	10u	6.0Ø	.50m	134					AØ	TO5		
52#	2SB382	270m	1.5M		#J	32	30 §		300m	10u	1.0Ø	20mØ	84 †	500nb	27	5.0		A	TO5		
53#	2SB383	270m	3.0M		#J	32	30 §		500m	10u	1.0Ø	20mØ	84 †					A	TO5		
54	2N2706	280m	2.5M§	3.3m	#	32	32	10	200m	10u	0.0	50m	115 †	155u	3.9k	11		ADØ	TO1		A
55#	OC122	295m	1.3M§	4.5m	#J	32	32	12	500m	500u	2.0Ø	100mØ	180 †					AΔ	TO7		H
56#	OC123	295m	1.5M§	4.5m	#J	50	50	15	500m	500uØ	2.0Ø	100mØ	160 †					AΔ	TO7		H
57	2N1176	300m	15k†		#J	35	35 §	10	300m	10uØ	5.0Ø	10mØ	20 Δ					A	TO5		A
58	2N1176A	300m	15k†		#J	40	40		300m		5.0Ø	10mØ	20 Δ					A	TO5		A
59	2N1176B	300m	15k†		#J	60	60		300m		5.0Ø	10mØ	20 Δ					A	TO5		A
60	2N672	300m	.20M	4.0m		25	25 Ø	25	2	75u								AΔ	R2		
61	2N1124	300m	.40MΔ	6.3mØ	J	40		40	250m	10uØ	6.0Ø	10mØ	40 Δ						TO5		A
62#	2SB201	300m	.50M	4.5mØ	J	35	35 §	12	400m	30uØ	1.0Ø	150mØ	60 †					AΔ	TO5		A
63#	NKT223	300m	.75MΔ	5.0m	#J	30	30 §	10	500m	10uØ	4.5Ø	1.0mØ	50 Δ				60pØ		TO5		AØ
64#	NKT224	300m	.75MΔ	5.0m	#J	30	30 §	10	500m	10uØ	4.5Ø	1.0mØ	30 Δ				60pØ		TO5		AØ
65#	NKT225	300m	.75MΔ	5.0m	#J	30	30 §	10	500m	10uØ	4.5Ø	1.0mØ	15 Δ				60pØ		TO5		AØ
66#	NKT229	300m	.75MΔ	5.0m	#J	30	30 §	10	500m	10uØ	4.5Ø	1.0mØ	85 Δ				60pØ		TO5		AØ
67	2N1125	300m	1.0MΔ	6.3mØ	J	40		40	250m	10uØ	1.0Ø	500mØ	150 †Ø						TO5		A
68#	AC180	300m	1.0M§Δ	4.0m	#S	32	24 §	10	1.0	20uØ	1.0	600mØ	110 †#*					A*	R134		
69#	NKT261	300m	1.0M	5.0m	#J	15	15 §	5.0	500m#	10uØ	1.5Ø	50mØ	50 †Δ						TO5		AØ
70#	NKT262	300m	1.0M	5.0m	#J	15	15 §	5.0	250m	10uØ	4.5Ø	1.0mØ	35 Δ						TO5		AØ
71#	NKT264	300m	1.0M	5.0m	#J	15	15 §	5.0	250m	10uØ	4.5Ø	1.0mØ	85 Δ						TO5		AØ
72#	2SB461	300m	1.2M		ØJ	35	30 §	12	400m	20uØ	1.0Ø	400mØ	80 †					A	TO5		A
73	40396/P	300m#Ø	1.5M	10m	#J	18	18 §	2.5	500m	14uØ	1.0Ø	50mØ	50 †Δ						TO1		
74	2N2000	300m	2.0M	4.0m	#J	50		20	1	100u	.50Ø	500mØ	175 †				35pØ	AΔ	TO5		A
75	GT5151	300m	2.5M	4.0m		40	10	15		25u	.50Ø	1.0	40 †Δ				25p	AΔ	TO5		AØ
76	2N2001	300m	6.0M	4.0m	#J	30		20	1	100u	.50Ø	500mØ	60 †Δ				35pØ	AΔ	TO5		A
77	GT5153	300m	10M	4.0m		25	6.0	15		25u	.50Ø	1.0	80 †Δ				25p	AΔ	TO5		AØ
78	2N2648†	300m	20.M	4.0m		35	25 §	30	2	100u	6.0Ø	1.0mØ	200	100u	5.0k		22p	A	TO5		AØ
79	2N3153	300m	30M§Δ	1.7m	§S	15	15	15	100m	.01u	5.0Ø	1.0mØ	3.0				8pØ	P	TO18		AØ
80	2N331	300m	100M	3.3mØ	A	30		12	200m	16u	6.0Ø	1.0m	50	24u	1.5k	4.7	36p	A	TO9		A
81	2N3883†	300m	100M§Δ	4.0m	#S	25	15	3.0	250m	100u§	1.0Ø	200mØ	30 †Δ				8pØ		TO5		AØ
82#	2G110	300m	200M§	5.0m	#J	36	15	2.5	50m	10u	3.0	50m	15				3.5p	ME	TO5		
83	2N705†	300mØ	300M	4.0m	#	15		3.5	50m	100u	.30Ø	10mØ	40 †				5.0p	ME	TO18		AØ
84	2N710†	300mØ	300M	4.0m	#J	15		2.0	50m	100u	.50Ø	10mØ	40 †				5.0p	ME	TO18		AØ
85	2N711†	300m	300M	4.0m		12	12 Ø	1.0	50m	3.0u	.50Ø	10mØ	30 †				5.0p	ME	TO18		AØ
86	2N2381†	300m	300M§Δ	4.0m	#J	30	15	4.0	500m	7.0uØ	.50Ø	200mØ	40 †				6.0p		TO39		AØ
87	2N2382†	300m	300M§Δ	4.0m	#J	45	20	4.0	500m	7.0uØ	.50Ø	200mØ	40 †				6.0p		TO39		AØ
88	JAN2N1142	300m	320M	4.0m	#J	30		.70	100m	100u	10Ø	10mØ	10 †Δ	100uØb	7.5 Ø		4.0pØ		TO5		A
89	2N1142A	300m	400M§Δ	10m	#S	30	25 Ø	.70	100m	4.0uØ	10Ø	10mØ	15 †Δ						TO5		AØ
90	2N1143A	300m	400M§Δ	10m	#S	30	25 Ø	.50	100m	4.0uØ	10Ø	10mØ	15 †Δ						TO5		AØ
91	2N1143	300m	480M	10m	#J	25		.50	100m	100u	10Ø	10mØ	49	40ub	3.6	20	1.5p	DØ	TO5		AØ
92	2N1141A	300m	500M§Δ	10m	#S	35	25 Ø	1.0	100m	4.0uØ	10Ø	10mØ	15 †Δ						TO5		AØ
93	2N1195	300m	550M§	4.0m	#J	30	20	1.0	50m		10Ø	10mØ	40	8.0ub	5.0	13	2.3p	DMEØ	TO29		AØ
94	2N1142	300m	600M	10m	#J	30		.70	100m	100u	10Ø	10mØ	49	40ub	3.6	20	1.4p	DØ	TO5		AØ
95	2N1141	300m	750M	10m	#J	35		1.0	100m	100u	10Ø	10mØ	49	40ub	3.6	20	1.2p	MEØ	TO5		AØ
96	2N249	350m			#	25			200m	25u	1.0	100m	50						R117		
97	2N1693	350m		4.8m	#J	25	25 Ø	2.0	500m	10uØ					35 Ø		10pØ		MT30		AØ
98#	2SB67	350m	1.0M			55		12	150m	10u	6.0Ø	1.0m	45	21u	1.3k	2.1	45p	A	TO1		
99#	2SB67A	350m	1.0M			60		30	150m	10u	6.0Ø	1.0m	45	21u	1.3k	2.1	45p	A	TO1		
100#	SFT124	350m	1.0M	5.9m	#J	24		12	500m	20u	1.0Ø	250mØ	30 †		220			A	R13		
101#	SFT143	350m	1.0M	5.9m	#J	45	20	25	500m	20u	1.0Ø	250mØ	30 †		220		60p	A	R13		
102#	SFT144	350m	1.8M	5.9m	#J	45	20	25	500m	20u	1.0Ø	250mØ	60 †		380		60p	A	R13		
103#	SFT125	350m	2.0M	5.9m	#J	24		12	500m	20u	1.0Ø	250mØ	70 †		500			A	R13		
104#	SFT125P	350m	2.0M	5.9m	#J	30	15	15	500m	25u	1.0Ø	250mØ	70 †		500			A	R13		
105#	2SA359	350m	250M			20			20m	15u	6.0Ø	5.0mØ	30				3.5p	ME	TO5		
106	2N1692	350m	500M§	3.3m	#J	25	25	3.0	250m	10uØ							7.0p	ME	MT30		Ø
107#	AF118	375m	125M§Δ	4.0mØ	J	70	70		30m	6.0u	2.0	10m	180 †				2.3pØ	AD	TO7		
108	JAN2N1039	400m		5.2m	#J	60	40	20		70uØ	1.5Ø	500uØ	2.0 Δ		60 Ø'				R81c		AØ
109	JAN2N1041	400m		5.2m	#J	100	60	20		70uØ	1.5Ø	500uØ	2.0 Δ		60 Ø				R81c		AØ
110#	AC124	400m		14m	ØJ	45		10		500u	6.0	50m	85 †					A	X9		

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC-TURE	DWG. No.	L E A D	C O D E
1#	ACY24	400m			ØJ	70		30	300m	60u	10	5.0m	60					A	X9		
2#	ACZ10	400m		14m	ØJ	70	50	30	300m	55u									X12		
3#	AC117	400m	10kt	14m	ØJ	30		10		500u	6.0	50m	85 †					A	X9		
4	KF2000	400m	.01M	5.6m	#J	80	50 Ø	20	3	100uØ	.50Ø	1 Ø	35 †Δ					AØ	TO5		AØ
5	KF2001	400m	.01M	5.6m	#J	120	100 Ø	20	3	100uØ	.50Ø	1 Ø	40 †Δ					AØ	TO5		AØ
6	KF2002	400m	.01M	5.6m	#J	80	50 Ø	20	3	100uØ	.50Ø	1 Ø	35 †Δ					AØ	TO5		AØ
7	KF2003	400m	.01M	5.6m	#J	120	100 Ø	20	3	100uØ	.50Ø	1 Ø	40 †Δ					AØ	TO5		AØ
8	2N1494A	400m	220M§Δ	5.3m	#S	20	15	4.0	500m	7.0uØ	.50Ø	200mØ	25 †Δ				8pØ		TO31		AØ
9	2N1494†	400m	320M§	5.3m	#S	20	15	4.0	500m	7.0uØ	1.5Ø	400mØ	35 †#				7.0p	AD	TO31		AØ
10	AC139K/AC142K	420m	1.5M	6.7m	#J	40	25	3.0	1.2	10uØ	0.0	400mØ	100 †				40p	A	TO1		
11#	SFT234	450m	.30M	7.7m	#J	80	50	20	1	750u	.50Ø	1 Ø	40 †					A	TO11		
12#	SFT234A	450m	.30M	7.7m	#J	80	60	20	1	125uØ	.50Ø	50mØ	30 †Δ						TO11		
13#	2SB347	500mØ	17kt	3.3m	ØJ	32		10	100m	10uØ	5.0	2.0m	125					A	TO1		
14#	2SB348	500m	17kt		ØJ	32		10	100m	10uØ	5.0	2.0m	180					AØ	TO1		
15#	ASY76	500m	300kΔ	4.0m	#J	40	32	10	300m	40u	0.0	300m	26 †Δ					AΔ	TO5		§
16#	ASY77	500m	300kΔ	4.0m	#J	60	60	10	300m	40u	0.0	300m	26 †Δ					AΔ	TO5		§
17#	ASY80	500m	700kΔ	4.0m	#J	40	40	20	300m	40u	0.0	300m	5 †Δ					AΔ	TO5		§
18#	SFT232	500m	700k§	6.6m	#S	40	30	20	3.0	50uØ	.50Ø	50mØ	110 †						TO11		Ø
19#	SFT233	500m	700k§	6.6m	#S	60	40	20	3.0	50uØ	.50Ø	50mØ	110 †						TO11		Ø
20#	AC125	500m	1.3M§Δ	3.3m	ØJ	32	32	10	100m	200u	5.0	2.0m	125	80u	1.7k	6.5		A	TO1		
21#	AC126	500m	1.7M§Δ	3.3m	ØJ	32	32	10	100m	200u	5.0	2.0m	100 †Δ	100u	2.4k	8.0		A	TO1		
22	2N1496†	500m	150M§Δ	6.7m	#J	40	25	4.0	500m	7.0uØ	.50Ø	200mØ	25 †Δ				6.5pØ		TO31		AØ
23#	OC74N	550mØ	8.0kt†Δ	11m	ØJ	20	10	6.0	300m	20uØ	6.0	50mØ	60 †Δ					A	TO1	A	
24#	SFT130	550m	1.0M	9.1m	#J	24		12	500m	20u	1.0Ø	250mØ	30 †		220			A	MS5		
25#	SFT145	550m	1.0M	9.1m	#J	45	20	25	500m	20u	1.0Ø	250mØ	30 †		220		60p	A	MS5		
26#	OC79	550m	1.2M	11m	ØJ	26	26 Ø		200m	10u	6.0	50mØ	42					A	R8		
27#	AC128	550m	1.5M§	3.3m	#J	32	32	10	1		0.0	50m	55 †Δ				100p	A	TO1		
28#	OC74	550m	1.5M	11m	ØJ	20	20 Ø		300m	10u	6.0	5.0m	75					A	R8		
29#	SFT146	550m	1.8M	9.1m	#J	45	20	25	500m	20u	1.0Ø	250mØ	60 †		380		60p	A	MS5		
30#	OC80	550m	2.0M		ØJ	32	32 Ø	20	600m	10u	6.0	50m	85					AΔ	R8		
31#	SFT131	550m	2.0M	9.1m	#J	24		12	500m	20u	1.0Ø	250mØ	70 †		500			A	MS5		
32#	SFT131P	550m	2.0M	9.1m	#J	30	15	15	500m	25u	1.0Ø	250mØ	70 †		500			A	MS5		
33#	AFY10	560m*Ø	250M§	4.0m	#J	30	15	1.0	70m	18uØ	10Ø	10mØ	60				1.2p	MEØ	TO5		
34#	AFY11	560m*Ø	300M§	4.0m	#J	30	15	1.0	70m	18uØ	10Ø	10mØ	60				1.2p	MEØ	TO5		
35#	2SB271	600m				25						100mØ	80 †					A	TO1		
36#	2SB272	600m				25						100mØ	200 †					A	TO1		
37#	2SB273	600m				25						100mØ	150 †					A	TO1		
38	OC83	600m	.85M§	4.0m	#J	32	20	3.0	500m	100u	6.0Ø	1.0mØ	90					AΔ	TO1		A
39#	OC84	600m	1.0M§	4.0m	#J	32	32	10	500m	100u	6.0Ø	1.0mØ	90					AΔ	TO1		A
40#	2SB496	600m	2.0M			25	18 §	2.5	250	14m	1.5Ø	50mØ	60 †Δ					A	TO1		
41#	SFT367	650m	4.0M§			32			1		1.0	300m	250 †Ø					A	R111		A
42#	NKT351	700m	1.0M	100m	#J	30		5.0	2.5	100uØ	0.0Ø	1.0 Ø	30 †Δ						R56b		A
43#	2N601†	750m	10 §Δ	10mØ	#J	30	20	20	500m	5.0uØ	1.0Ø	100mØ	175 †				15p	A	MT60		
44#	NKT302	750m	1.0M	11m	#J	60	40	15	2.5	50uØ	0.0Ø	50mØ	50 †Δ						R56b		A
45#	NKT304	750m	1.0M	11m	#J	30	20	15	2.5	50uØ	0.0Ø	50mØ	50 †Δ						R56b		A
46	JAN2N600†	750m	5.6M§Δ	10m	#S	35	35 Ø	30		25u	1.0Ø	200mØ	50 †Δ				20pØ		MT60		
47	2N600	750mØ	10.M	10m	#J	35	35 Ø	30	500m	25u	1.0Ø	100mØ	125 †				15p	AΔ	MT60		
48	2N1385	750mØ	250M§Δ	10m	#S	25	10	4.0	100m	10uØ	10Ø	10mØ	10 †Δ				2.5pØ		RO100		AØ
49#	GM378A	750m	400M§Δ			20	15	.30	50m			3.0mØ	20 †Δ					EMØ	R80		X
50	2N2929	750mØ	700M§Δ	10mØ	#S	25	10	.75	100m	5.0uØ	10Ø	10mØ	10 Δ				3pØ		TO5		AØ
51#	GM290A	750m	700M§			20	15	.30	50m			3.0mØ	20 †Δ					EM	R80		X
52#	2SB458	800m		13mØ	#J	25	25 Ø	12	1.0	100uØ	1.5Ø	500mØ	28 †Δ					A	MD17		CØ
53#	2SB458A	800m		13mØ	#J	45	45 Ø	12	1.0	100uØ	1.5Ø	500mØ	28 †Δ					A	MD17		CØ
54#	2SB458B	800m		13mØ	#J	100	100 Ø	12	1.0	50uØ	1.5Ø	500mØ	28 †Δ					A	MD17		CØ
55#	ACY16	800m	.37MΔ	3.3m	#J	45	30	10	400m	30uØ	1.0Ø	300mØ	40 †Δ					A	X9		
56#	AC188	800m	1.5M§	13m	#J	25	15	10	1	200u	1.0Ø	300mØ	200 †				90p$	A	R51a		A
57#	AC188K	800m	1.5M§	13m	#J	25	15	10	1	200u									X9a		
58#	AFY19	800m	350M§	4.0m	#J	32	32	.50	300m	10uØ	12	80m	40 †Δ		18		12p	AD	TO39		Ø
59	JAN2N2553	900m		12m	#J	60	40	20		70uØ	1.5Ø	500uØ	2.0 Δ		60 Ø				MT27		AØ
60	JAN2N2555	900m		12m	#J	100	60	20		70uØ	1.5Ø	500uØ	2.0 Δ		60 Ø				MT27		AØ
61#	ASY48	900m*Ø	1.2M§	3.3m	#J	64	45	16	300m	18u	.50Ø	100mØ	50 †					A	TO1		
62#	AC121	900m*Ø	1.5M§	3.3m	#J	20	20	10	300m	25u	.50Ø	100mØ	100 †					A	TO1		
63#	AC152	900m*	1.5M§	3.3m	#J	32	24	10	500m	25u	.50Ø	100m	75 †						TO1		A
64#	ASY70	900m*Ø	1.5M§	3.3m	#J	32	30	16	300m	18u	.50Ø	100mØ	80 †					A	TO1		
65#	AC162	900m*Ø	1.7M§	3.3m	#J	32	24	10	200m	25u	5.0	2.0m	110 †	80u	2.0k	8.0		At	TO1		
66#	AC163	900m*Ø	2.3M§	3.3m	#J	32	24	10	200m	25u	5.0	2.0m	160 †	90u	2.8k			A	TO1		
67#	AC153K	1.0 *Ø	1.5M§		#J	32	32 §	10	1.0	200u	0.0	300mØ	90 †					A			
68#	2N2095	1.0 Ø	500M§Δ	14mØ	#S	30	15	1.0	300m	15uØ							8.0pØ		TO31		AØ
69#	AC153	1.1 *Ø	1.5M§	3.3m	#J	32	32 §	10	1.0	200u	0.0	300mØ	90 †					A	TO1		
70#	ACY33	1.1 *Ø	1.5M§	3.3m	#J	32	32 §	10	1.0	50u	0.0	300mØ	90 †					A	TO1		
71#	2SB372	1.5 Ø		25m	#	25	25 §	10	1.0	50uØ	1.5Ø	200mØ	70 †					A	TO5		
72#	2SB373	1.5 Ø		25m	#	25	25 §	10	1.0	50uØ	1.5Ø	200mØ	150 †					A	TO5		
73#	2SB374	1.5 Ø		25m	#	60	60 §	10	1.0	50uØ	1.5Ø	200mØ	150 †					A	TO5		
74#	2SA374	1.5 Ø	300M§		#J	34		.50	300m	12uØ	2.0	150m	100				13p	AD	TO5		

3. GERMANIUM NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	COMMON EMITTER hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N1010	20m	2.0M	667u	*A	10	10	10	2.0m	10u	3.0Ø	.30m	35					AØ	TO1	A§
2	2N170	25m	2.5M	1.1m	*S	6.0			20m	3.0u	5.0	1.0m	20				4.0p	G	OV5	
3	2N166	25m	5.0M		*	6.0			20m	5.0u	6.0	1.0m	32						RO5a	A
4#	2SC75	30m	10.M		ØJ	15			5.0m	8.0u	6.0	1.0m	24		38		2.1p	G	R14	
5#	2SC76	30m	10.M		ØJ	15			5.0m	8.0u	6.0	1.0m	24		38		2.1p	G	R14	
6#	2SC77	30m	10.M		ØJ	15			5.0m	8.0u	6.0	1.0m	24		38		2.1p	G	R14	
7#	2SC73	30m	20.M		ØJ	15			5.0m	8.0u	6.0	1.0m	41		35		2.0p	G	R14	
8#	2SC78	30m	20.M		ØJ	15			5.0m	2.0u	6.0	1.0m	49	.20u	33	2.0	1.5p	G	R14	
9	2N124	50m	300k	714u	Ø	10		5.0	8.0m	2.0u	5.0	1.0mØ	18				10p		OV9	
10	2N507	50m	.60M		#	40			100m	15u	.50	10m	25 Δ						TO22	F
11	2N567	50m	.60M		#	40			100m	15u	1.0	10m	40						R116	
12	2N103	50m	.75M		Ø	35			10m	50u	4.5	1.0m	4.0				20p	G	OV9	A
13	2N97	50m	1.0M		Ø	30			10m	2.0u	4.5	1.0m	13				19p	GΔ	TO5	A
14	2N98	50m	2.5M		Ø	40			10m	2.0u	4.5	1.0m	40				14p	G	OV9	A
15	2N194	50m	3.0M	1.0m	ØJ		18 §		100m	25u	6.0Ø	1.0mØ	8.0				11p	A	TO22	F
16	2N194A	50m	3.0M	1.0m	ØJ		18 §		100m	50u	6.0Ø	1.0mØ	8.0				11p	A	TO22	F
17	2N211	50m	3.0M	1.0m	ØJ		10		50m	20u	6.0Ø	1.0m	5.0				10p	A	TO22	F
18	2N216	50m	3.0M	1.0m	ØJ		18 §		50m	50u	6.0Ø	1.0mØ	7.5				11p	A	TO22	F
19	2N515	50m	3.0M	1.0m	ØJ		18		10m	50u	6.0Ø	1.0mØ	7.5				11p	A	TO22	F
20	2N516	50m	3.0M	1.0m	ØJ		18 §		10m	50u	6.0Ø	1.0mØ	7.5				11p	A	TO22	F
21	2N517	50m	3.0M	1.0m	#J		18		10m	50u	6.0Ø	1.0mØ	7.5				11p	A	TO22	F
22	2N99	50m	3.5M		Ø	40			10m	2.0u	4.5	1.0m	40				10p	GΔ	OV9	A
23	2N1058	50m	4.0MΔ	2.5m	#J		18 §		50m	50u	6.0Ø	1.0mØ	17				10p	A	TO22	F
24	2N125	50m	5.0M	1.4m	ØJ	10		5.0	8.0m	2.0u	5.0	1.0mØ	36	230nb	62	3.0	10p		OV9	
25	2N126	50m	5.0M	1.4m	ØJ	10		5.0	8.0m	2.0u	5.0	1.0m	20	b		90	14p		R26	
26#	2SC60	50m	5.0MΔ	588u	#J	20	20 Ø	10	20m	15u	6.0Ø	1.0mØ	50				25pⓅ	A	TO1	
27	2N169	55m	4.0M	1.1m	ØA	15	15		20m	5.0u							2.4p	G	OV17	A
28	2N169A	55m	5.0M	1.1m	ØA	25	25		20m	5.0u							2.4p	G	OV17	A
29	2N168	55m	6.0M	1.1m	ØA	15	15		20m	5.0u							2.4p	G	OV17	A
30	JAN2N78A	60m	11M§Δ	1.0m	#S	20	20		20m	3.0uØ	1.0Ø	1.0mØ	45 †Δ	b		140 Ⓠ	6.0pⓅ	G	OV17	F
31	2N78A	65m		1.1m	#S	20	20	5.0	20m	3.0uØ									OV5	F
32	2N145	65m		1.4m	ØJ	20			5.0m	3.0u	9.0	1.0mØ					1.0p	G	OV9	
33	2N146	65m		1.4m	ØJ	20			5.0m	3.0u	9.0	1.0mØ					1.0p	G	OV9	
34	2N147	65m		1.4m	ØJ	20			5.0m	3.0u	9.0	1.0mØ					1.0p	G	OV9	
35	2N172	65m		1.4m	ØJ	16			5.0m	3.0u	9.0	1.0mØ					1.0p	G	OV9	
36	2N253	65m				12	5.0			3.0u	.50Ø	100mØ	30 Δ						OV9	
37	2N254	65m				20	5.0			3.0u	.50Ø	100mØ	30 Δ						OV9	
38#	2SD162	65m	3.0M	1.1m	#J	20	15 §	2.5	30m	12uØ	6.0Ø	1.0m	60	17u	2.0k	4.0		A	R18	
39	2N164	65m	4.0MΔ		#J	15	15	1.0	30m	5.0u	1.0Ø	1.0mØ	80 Ⓠ				10p		TO5	A
40	2N165	65m	5.0M	1.1m	#J	15	15		20m	5.0u	1.0Ø	.02mΔ	72 †				2.4p	G	R5	
41	2N292	65m	5.0M	1.1m	#S	15	15		20m	5.0u	1.0Ø	1.0mØ	25 †	67u		1.0	2.4p	G	OV5	
42	2N448	65m	5.0M	1.1m	#S	15	15		20m	5.0u	1.0Ø	1.0mØ	25 †	67u		1.0	2.4p	G	OV5	
43	2N1198	65m	5.0MΔ		#J		25		75m			8.0mØ	17 †						OV17	
44	2N168A	65m	8.0M	1.1m	#A	15	15		20m	5.0u							2.4p	G	OV17	A
45	2N293	65m	8.0M	1.1m	#S	15	15		20m	5.0u	1.0Ø	1.0mØ	25 †	67u		.50	2.4p	G	OV5	
46	2N449	65m	8.0M		#J		15		20m	5.0u		1.0mØ	72 †						OV17	
47	2N1086	65m	8.0M	1.1m	#J	9.0	9.0		20m	3.0uØ	5.0Ø	1.0mØ	40					G	OV5	A
48	2N1086A	65m	8.0M	1.1m	#J	9.0	9.0		20m	3.0uØ	5.0Ø	1.0mØ	40					G	OV5	A
49	2N1087	65m	8.0M	1.1m	#J	9.0	9.0		20m	3.0uØ	5.0Ø	1.0mØ	40					G	OV5	A
50	2N1121	65m	8.0M		#J		15		20m	5.0u		1.0mØ	34 †						OV5	A
51	2N78	65m	9.0M	1.1m	#S	15	15	5.0	20m	3.0u	5.0	1.0m	58	200nb	55	2.0	6.0p		OV5	
52	2N167	65m	9.0M	1.1m	#S	30	30	5.0	75m	1.5uØ	5.0	1.0m	65	200nb	55	1.5	2.5p	Δ	OV5	
53	JAN2N167A	70m	5.0MΔ	1.1m	#S		30	5.0	75m	1.5uØ	1.0Ø	8.0mØ	17 †Δ				6.0pⓅ		OV5	
54	2N1510	75m		1.3m	#J	75	70 §	8.0	20m	5.0u	1.0	1.0mØ	30 †					G	OV5	
55	2N167A	75m	9.0M	1.2m	#S	30	30	5.0	25m	1.5uØ	1.0	8.0mØ	30 †	200nb	55	1.5	6.0p	Δ	OV5	
56	2N1217	75m	9.0M	1.3m	#S	20	20	5.0	25m	1.5uØ	1.0Ø	2.0mØ	60 †				2.5p	Δ	OV5	A
57	2N1694†	75m	9.0M	1.3m	#J	20	20	10	25m	1.5uØ	1.0Ø	2.0mØ	25 †				2.5p		TO5	A
58	2N821†	75m	10.MΔ	1.3m	#J	30	15	25	400m	10uØ	1.0Ø	50mØ	70 †				90p	FA	u8	
59#	2SD35	83m		1.6m	ØJ	20		10	60m	10uØ	1.0Ø	250uΔ	108 †Ⓠ					A	R18	
60#	2SD36	83m		1.6m	ØJ	20		10	60m	10uØ	1.0Ø	250uΔ	220 †Ⓠ					A	R18	
61	2N556	100m		1.7m	#J	25		15	200m		.30Ø	10mΔ	50 †					AΔ	TO5	A
62	2N557	100m		1.7m	#J	20		10	200m	10u	.30Ø	10mΔ	30 †					AΔ	TO5	A
63	2N558	100m		1.7m	#J	15		15	200m	10u	.30Ø	10mΔ	75 †					AΔ	TO5	A
64	2N647	100m		2.0m	ØA	25	25	12	50m	14u	1.0Ø	50mØ	70 †					A	TO1	A
65	2N649	100m		2.0m	ØA	20	18	2.5	50m	14uØ	1.0Ø	50mØ	65 †					A	TO1	A
66	2N444	100m	.50MΔ	2.0m	#S	15	15			2.0uØ	4.5Ø	1.0m	15				13p	A	TO5	A§
67	2N445	100m	2.0MΔ	2.0m	#S	15	12			2.0uØ	4.5Ø	1.0m	35				13p	A	TO5	A§
68	2N1366	100m	2.5MΔ	1.6m		12	18 §		10m	15u	6.0Ø	1.0m	10				11p	FAΔ	TO5	A
69	2N1367	100m	2.5MΔ	1.7m		12	18 §		10m	15u	1.0Ø	10mØ	20 †Δ				11p	FAΔ	TO5	A
70	2N356†	100m	3.0M§	2.0m	#S	20	18	20	500m	#5.0uØ	5.0Ø	1.0mØ	30				14p	A	TO5	A§
71	2N182	100m	3.8M	2.0m	Ø	25		15			6.0	1.0m	25				10p	A	R8a	A
72	2N164A	100m	4.0MΔ		#J	15	15	1.0	30m	5.0u	1.0Ø	1.0mØ	80 Ⓠ				10p		TO5	A
73	GT792	100m	4.8M	2.0m	#S	20			100m	6.0uØ	5.0	5.0m	37 †Δ					A	TO9	
74	2N292A	100m	5.0M		#J	15	15	.50	20m	5.0u	1.0Ø	1.0mØ	51 Ⓠ				10p		TO5	A
75	2N446	100m	5.0MΔ	2.0m	#S	15	10			2.0uØ	4.5Ø	1.0m	60				13p	A	TO5	A§
76	2N357†	100m	6.0M§	2.0m	#S	20	15	20	500m	#5.0uØ	5.0Ø	1.0mØ	45				14p	A	TO5	A§
77	2N183	100m	7.5M	500u	Ø	25		15			6.0	1.0m	40				10p	A	R8a	A
78	2N439	100m	7.5M	1.6m	#J	25		25	300m	10u	1.0Ø	50mØ	45	1.0ub	27	4.0	9.0p	A	TO5	A
79	2N358†	100m	9.0M§	2.0m	#S	20	12	20	500m	#5.0uØ	5.0Ø	1.0mØ	60				14p	A	TO5	A§
80	2N447	100m	9.0MΔ	2.0m	#S	15	6.0			2.0uØ	4.5Ø	1.0m	125				13p	A	TO5	A§
81#	2SC50	100m	12M	2.0m	ØJ	20		20	200m	3.0uØ	6.0Ø	1.0mØ	45					A	R9	
82	2N184	100m	15M	500u	Ø	25		15			6.0	1.0m	60				10p	A	R8a	A
83#	2SD66	120m	800k		ØJ	25	20 §		100m	15u	1.0Ø	10mØ	25 †	250nb	28	1.2	35p	A	R14	
84	2N1310	120m	1.0M	2.0m	#S	90		20		25u	5.0	1.0m	35	1.0ub	35	5.0	11p		TO9	A
85	JAN2N1310	120m	1.0MΔ	2.0m	#S	90		20		7.0uØ	.25Ø	5.0mØ	20 †Δ	2.0ub		15			TO9	A
86#	2SD61	120m	1.0M		ØJ	30	25 §	10	100m	10u	1.0Ø	10mØ	50 †	250nb	28	1.2	35p	AØ	R14	
87#	2SD62	120m	1.0M		ØJ	30	25 §	10	100m	10u	1.0Ø	10mØ	50 †	250nb	28	1.2	35p	AΔ	R14	
88#	2SD63	120m	1.0M		ØJ	25	20 §		100m	10u	1.0Ø	10mØ	50 †				35p	A	R14	
89#	2SD64	120m	1.0M		ØJ	25	20 §		100m	15u	1.0Ø	10mØ	100 †	250nb	28	1.2	35p	A	R14	
90#	2SD65	120m	1.0M		ØJ	25	20 §		100m	15u	1.0Ø	10mØ	50 †	250nb	28	1.2	35p	A	R14	
91	2N1311	120m	1.5M	2.0m	#S	75		20		25u	5.0	1.0m	30	1.0ub	35	5.0	11p		TO9	A
92	2N1312	120m	2.0M	2.0m	#S	5.0		20		25u	5.0	1.0m	40	1.0ub	35	5.0	11p		TO9	A
93	2N1672	120m	2.0MΔ	2.0m		40		10		25u	5.0Ø	1.0m	50		2.0k			A	TO5	A
94	2N1672A	120m	2.0MΔ	2.0m	#S	40	40	10			60Ø	1.0m	15 Δ		4kⓆ				TO5	A
95#	2SC89†	120m	3.0M	2.0m	#J	15					.20	20m	20 Δ†				25p		TO5	
96#	2SC179†	120m	3.0M	2.0m	#J	25		20	200m	25u	.20Ø	20m	20 Δ†				25p		TO1	
97	2N585†	120m	5.0M	2.9m	ØA	25	15	20	200u	8.0uØ	.20Ø	20mØ	40 †				17p	A	TO9	A
98#	2SC90†	120m	5.0M	2.0m	#J	25		20	400m	25u	.30	200m	20 Δ†				25p		TO5	
99#	2SC180†	120m	5.0M	2.0m	#J	25		20	400m	25u	.30Ø	200m	20 Δ†				25p		TO1	
100	2N1090†	120m	7.0M		#A	25	15	20	400m	25u	.20Ø	20mØ	50 †				17p	A	TO9	A
101#	2SC91†	120m	10.M	2.0m	#J	25		20	400m	25u	.30	200m	20 Δ†				25p		TO5	
102#	2SC181†	120m	10.M	2.0m	#J	25		20	400m	25u	.30Ø	200m	20 Δ†				25p		TO1	
103	2N1091†	120m	13.M		#A	25	12	20	400m	25u	.20Ø	20mØ	70 †				17p	A	TO9	A
104#	2SD31	125m		2.5m	ØJ	25		10	125m	15uØ	1.0Ø	2.0mØ	50 †					AØ	TO1	
105#	2SD32	125m		2.5m	ØJ	25		10	125m	15uØ	1.0Ø	2.0mØ	90 †					AØ	TO1	
106#	ASY28†	125m	4.0M§Δ	2.5m	#J	30	25	5.0	100m	3.0uØ	0.0	20m	30 †Δ				16pⓅ	A	TO5	
107	GT1608	125m	4.5M	2.0m	#S						5.0Ø	1.0m					14p	A	TO9	
108	GT1609	125m	5.0MΔ	2.0m	#S						5.0Ø	1.0m					14p	A	TO9	
109#	2SC128†	125m	5.5M§		ØJ	30	25	20	100m	3.0uØ	.50Ø	100mØ	30 †					A	TO5	
110#	ASY29†	125m	6.0M§Δ	2.5m	#J	25	20	5.0	100m	3.0uØ	0.0	20m	50 †Δ				16pⓅ	A	TO5	

3. GERMANIUM NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T E M A X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	2SC129†	125m	8.0M§		ØJ	25	20	20	100m	3.0uØ	.50Ø	100mØ	45 †					A	TO5	
2#	OC141	130m	9.0M	2.0m	ØJ	20	20	20	200m	3.0uØ	0.0	15m	100 Δ				30pØ	AΔ	R9	
3#	2SC34†	140m	3.5M§Δ	2.7m	ØJ	20		20	250m	3.0uØ	0.0	200m	30 †					A	R9	
4#	OC139	140m	3.5MØΔ	2.8m	ØJ	20	20	20	250m		0.0	15m	40 †				20p	AΔ	R9	
5#	2SC35†	140m	4.5M§Δ	2.7m	ØJ	20		20	400m	3.0uØ	0.0	200m	65 †					A	R9	
6#	OC140	140m	4.5MØΔ	2.8m	ØJ	20	20	20	400m		0.0	15m	75 †				20p	AΔ	R9	
7#	2SC36†	140m	9.0M§Δ	2.7m	ØJ	20		20	400m	3.0uØ	0.0	200m	100 †					A	R9	
8	2N312	150m		2.0m	#S	15		15		60u	5.0Ø	10m	50 †	500nb				AΔ	TO5	A
9	2N356A†	150m		2.0m	#S	30	20	20		5.0uØ	.25Ø	100mØ	20 †Δ						TO5	A§
10	2N357A†	150m		2.0m	#S	30	20	20		5.0uØ	.25Ø	200mØ	25 †Δ						TO5	A§
11	2N358A†	150m		2.0m	#S	30	15	20		5.0uØ	.25Ø	300mØ	25 †Δ						TO5	A§
12	JAN2N358A†	150m		2.0m	#S	30	15	20		25u	.25Ø	300mØ	25 †Δ						R81a	A§
13	2N1730†	150m		2.5m	#J	25	15 #	20	300m	6.0u	.30Ø	100mØ	30 †Δ				20pØ		TO5	A§
14	GT229	150m		2.0m	#S	12			200m	20u	5.0Ø	1.0m	20	500nb	30			A	TO5	
15#	NKT773	150m		2.5m	#J	15	15 §	5.0	300m	15uØ	1.5Ø	50mØ	50 †Δ						TO1	A
16	2N1251	150m	75kΔ	2.5m	#J	20	15 §	10	100m	50u	6.0Ø	1.0m	150					A	TO22	F
17	2N444A	150m	500kΔ	2.0m	#S	40	25	10		4.0uØ	5.0Ø	1.0m	15 Δ	1.0uØb					TO5	A§
18	GT949	150m	700kΔ	2.0m	#S	30			200m	25u	3.5Ø	1.0mΔ	30	500nb			16p	AΔ	TO5	
19	2N35	150m	800k	2.5m	ØJ	40			100m	50u	6.0Ø	1.0mØ	75	30u	2.5k	6.0		A	TO22	A
20	2N94	150m	2.0MΔ	2.5m	#J	20	20 §		100m	50u	6.0Ø	1.0mØ	50 †				100p	A	TO22	F
21	2N233	150m	2.0MΔ	1.5m	#J	10	10	5.0	100m	50u	6.0Ø	1.0m	3.5 Δ				11p	A	TO22	F
22	2N233A	150m	2.0MΔ	1.5m	#J	18	18 §	5.0	100m	50u	6.0Ø	1.0mØ	15				11p	A	TO22	F
23	2N445A	150m	2.0MΔ	2.0m	#S	30	18	10		4.0uØ	5.0Ø	1.0m	35 Δ	1.0uØb					TO5	A§
24#	2SD33	150m	2.0M	2.5m	#J	20	15 §	2.5	50m	14uØ	6.0Ø	1.0m	60	17.u	1.7k	3.8		A	TO1	
25#	2SD37	150m	2.0M	2.5m	#J	30	20 §	12	50m	14u	6.0Ø	1.0m	60 *	17.u	1.7k	3.8	30p	A	TO1	
26#	NKT717	150m	2.0M	2.7m	ØJ	45	45 §	10	150m	15uØ	1.5Ø	50mØ	40 †Δ						TO1	A
27	2N364	150m	2.5M	2.0m	ØS	30		2.0	50m	10u	5.0	1.0m	15	100nb	55	900m	10p	G	OV9	
28#	2SD195	150m	2.5MΔ	2.5m	#J	20	15 §	15	50m	14uØ	1.0Ø	50mØ	70 †					AΔ	TO1	
29#	2SD104	150m	2.8M	3.0m	ØJ	20		6.0	400m		.50Ø	100mØ	60 †Δ					A	TO1	A
30#	2SD105	150m	2.8M	3.0m	ØJ	20		6.0	400m		.50Ø	100mØ	35 †Δ					A	TO1	A
31	2N193	150m	3.0M	2.5m	#J	18	18 §	5.0	50m	50u	6.0Ø	1.0m	7.5				11p	A	TO22	A
32	2N365	150m	3.0M	2.0m	ØS	30		2.0	50m	10u	5.0	1.0m	34	100nb	55	900m	10p	G	OV9	
33	2N679†	150m	3.0M	2.5m	#J	25				25u	.50Ø	3.0mØ	30 †					A	R5	
34	2N1012†	150m	3.0MΔ	2.0m	#S	40	22	35		5.0uØ	.25Ø	100m	40 †Δ				20pØ		TO5	A§
35	2N1302†	150m	3.0MΔ	2.5m	#S	25	25	25	300m	6.0u	1.0Ø	10mØ	20 †Δ				20pØ	A	TO5	A§
36	JAN2N1302	150m	3.0MΔ	2.5m	#S	25		25	300m	6.0u	1.0Ø	10mØ	20 †Δ				20pØ		TO5	A§
37	2N1391	150m	3.0MΔ	2.0m	#S	25	18	15		4.0uØ	5.0Ø	1.0m	35 Δ						TO5	A
38	2N1993†	150m	3.0MΔ	2.0m	#J	30	18	30	300m	10uØ	1.0Ø	10mØ	50 Δ				20pØ	A	TO5	AØ
39#	2SD75AH	150m	3.0M			45	30	12	100m		6.0Ø	1.0m	40	15u	1.1k	25	4.2p	A	TO1	
40#	2SD75H	150m	3.0M			30	30	12	100m	10u	6.0Ø	1.0m	40	15u	1.1k	25	4.2p	A	TO1	
41	2N366	150m	3.5M	2.0m	ØS	30		2.0	50m	10u	5.0	1.0m	95	100nb	55	900m	10p	G	OV9	A
42#	2SD77	150m	3.5M			25	25 Ø	12	100m	14u	6.0Ø	1.0m	55	16.u	1.6k	3.1		A	TO1	
43#	2SD77A	150m	3.5M			45	45 Ø	12	100m		6.0Ø	1.0m	55	16.u	1.6k	3.1		A	TO1	
44#	2SD77AH	150m	3.5M			45	30	12	100m		6.0Ø	1.0m	55	19u	1.4k	2.7	5.0p	A	TO1	
45#	2SD77H	150m	3.5M			30	30	12	100m	10u	6.0Ø	1.0m	55	19u	1.4k	2.7	5.0p	A	TO1	
46	2N438†	150m	3.7M	2.0m	#J	30	25	25	300m	6.0u	1.0Ø	50m	25	1.0ub	27	4.0	15p	A	TO5	A
47	2N212	150m	4.0MΔ	1.0m	#A	18	18	5.0	100m	50u	6.0Ø	1.0mØ	20				10p	A	TO22	F
48#	2SD75	150m	4.0M	2.5m	#J	25	25 Ø	12	100m	14u	6.0Ø	1.0m	40	15.u	1.2k	3.0		A	TO1	
49#	2SD75A	150m	4.0M	2.5m	#J	45	45 Ø	12	100m	25u	6.0Ø	1.0m	40	15.u	1.2k	3.0		A	TO1	
50	GT904	150m	4.0M	2.0m	#S	20			200m	25u	.20Ø	1.0mΔ	30 †	500nb			16p	A	TO5	
51	GT948	150m	4.0MΔ	2.0m	#S	20		5.0	200m	20u	3.5Ø	1.0mΔ	30 †	500nb				AΔ	TO5	
52	2N94A	150m	5.0MΔ	2.5m	#J	20	20 §		100m	50u	6.0Ø	1.0mØ	20 †				100p	A	TO22	F
53	JAN2N388†	150m	5.0MΔ	2.0m	#J	25	20 §	15	200m	10u	5.0Ø	30mØ	60 †Δ				20pØ		TO5	A
54	2N446A	150m	5.0MΔ	2.0m	#S	30	15	10		4.0uØ	5.0Ø	1.0m	60 Δ	1.0uØb					TO5	A§
55	2N1299	150m	5.0M	2.0m	#J	40					1.0Ø	50mØ	35 †Δ					A	TO5	A§
56	2N1304†	150m	5.0MΔ	2.5m	#S	25	20	25	300m	6.0u	1.0Ø	10mØ	40 †Δ				20pØ	A	TO5	A§
57	JAN2N1304	150m	5.0MΔ	2.5m	#S	25		25	300m	6.0u	1.0Ø	10mØ	40 †Δ				20pØ		TO5	A§
58	2N1732	150m	5.0MΔ	2.5m	#S	30	30 #	25	300m	6.0u	1.0Ø	10mØ	40 †Δ				20pØ		TO5	A§
59	2N1891*	150m	5.0MΔ	2.5m	#S	25	15	25	300m	5.0uØ	.15Ø	100mØ	25 †Δ				20pØ		TO5	A§
60	2N1892†	150m	5.0MΔ	2.5m	#J	30	15	25	300m	6.0uØ	5.0Ø	2.0mØ	30 Δ				20pØ		TO5	A§
61	GT167	150m	5.0MΔ	2.0m	#S	25		15		25u	1.0Ø	8.0m	25 †	500nb	28	3.0	16p	A	TO5	
62#	NKT734†	150m	5.0M	2.5m	#J	25	20	25	300m	6.0u	1.0Ø	10mØ	40 †Δ				20pØ		TO5	A
63#	SFT184	150m	5.0M§Δ	2.5m	#J	15	15		100m	5.0u	6.0Ø	1.0mØ	60 Δ				20p	A	TO5	
64	2N377†	150m	6.0M	2.0m	#J	25	20 §	15	200m	10u	.50Ø	30mØ	40 †				15p	A	TO5	A
65	2N377A†	150m	6.0M	2.0m	#J	40		15	200m	20uØ	1.0Ø	30mØ	20 Δ				15p	A	TO5	A§
66	2N385	150m	6.0M	2.0m	#J	25	25 §	15	200m	10u	.75Ø	30m	60 †				15p	AΔ	TO5	A
67	2N1000†	150m	7.0MΔ	2.0m	#S	40	25	40		15u	.50Ø	100m	25 †Δ				20pØ		TO5	A
68	2N385A	150m	8.0M	2.0m	#J	40	15	15	200m	40u	.50Ø	30m	70 †				20pØ	AΔ	TO5	A
69	2N388A†	150m	8.0M	2.0m	#J	40		15	200m	10uØ	.50Ø	30mØ	60 †Δ				15p	A	TO5	A§
70	2N634	150m	8.0M	2.5m	#	20	15	15	300m	15u	.75Ø	200mØ	15 †Δ				12p	A	TO9	A§
71	2N634A	150m	8.0M	2.5m	#	25	20 §	25	300m	6.0uØ	1.0	10mØ	55 †				12p	A	TO5	A§
72	2N1624†	150m	8.0M	2.0m	#J	25		15		1.0u	.50Ø	30m	120 †				24p	A	TO5	
73	2N2085	150m	8.0M	2.0m	#	33			500m	5.0uØ	.25Ø	10m	100				20p	A	TO5	A
74	2N447A	150m	9.0MΔ	2.0m	#S	30	12	10		4.0uØ	5.0Ø	1.0m	85 Δ	1.0uØb					TO5	A§
75	2N440†	150m	10MΔ	2.0m	#J	30	15	25	300m	10u	1.0Ø	50m	40 †	1.0ub	27	4.0	15pØ	A	TO5	A
76	2N1114	150m	10.M	2.0m	#J	25		15	200m	30u	120Ø	20mØ	110 †					A	TO5	A
77	2N1306†	150m	10.MΔ	2.5m	#S	25	15	25	300m	6.0u	1.0Ø	10mØ	60 †Δ				20pØ	A	TO5	A§
78	JAN2N1306	150m	10MΔ	2.5m	#S	25		25	300m	6.0u	1.0Ø	10mØ	60 †Δ				20pØ		TO5	A§
79#	NKT736	150m	10.M	2.5m	#J	25		25	300m	6.0u	1.0Ø	10mØ	60 †Δ				20pØ		TO5	A
80	2N635	150m	12.M	2.5m	#	20	15	15	300m	15u	.75Ø	200mØ	25 †Δ				12p	A	TO9	A§
81	2N635A	150m	12.M	2.5m	#	25	20 §	25	300m	6.0uØ	1.0	10mØ	100 †				12p	A	TO5	A§
82	2N1605	150m	14.M	2.0m	#J	25	24	12	100m	5.0uØ	.25Ø	20mØ	125 †				13p	A	TO5	A§
83	2N1808†	150m	14.M	2.5m	#J	25	25	20	300m	5.0uØ	.25Ø	20mØ	125 †				13p	A	TO5	A§
84	2N388†	150m	15.M	2.0m	#J	25	20	15	200m	10u	.50Ø	30m	150 †				15p	A	TO5	A§
85	2N1308†	150m	15.MΔ	2.5m	#S	25	15	25	300m	6.0u	1.0Ø	10mØ	80 †Δ				20pØ	A	TO5	A§
86	JAN2N1308	150m	15MΔ	2.5m	#S	25		25	300m	6.0u	1.0Ø	10mØ	80 †Δ				20pØ		TO5	A§
87#	SFT298†	150m	15.M	2.5m	#J	30		20	500m	10u	.45Ø	350mØ	35 †Δ				25pØ	A	TO5	A§
88	2N636	150m	17.M	2.5m	#	20	15	15	300m	15u	.75Ø	200mØ	35 †Δ				12p	A	TO9	A§
89	2N636A	150m	17.M	2.5m	#	25	15 §	25	300m	6.0uØ	1.0	10mØ	190 †				12p	A	TO5	A§
90	2N797†	150m	600M§Δ	2.0m	#	20	7.0	4.0	150m	100u	.50Ø	50mØ	85 †				4p§Ø	ME	TO18	AØ
91#	NKT713	160m	2.0M	3.2m	#J	30	30 §	15	500m	15uØ	0.0Ø	50mØ	50 †Δ						TO1	A
92	2N1059	180m	.01MΔ	3.0m	#J	20	15 §	10	100m	50u	1.5Ø	35mØ	75 †					A	TO22	F
93	2N1101	180m	.01MΔ	3.0m	#J	20			100m	50u	1.5Ø	35mØ	45					AΔ	TO22	F
94	2N1102	180m	.01MΔ	3.0m	#J	40			100m	50u	1.5Ø	35mØ	45					AΔ	TO22	F
95	2N1431	180m	10kΔ	3.7m	ØJ	20	15	10	100m	50u	1.5Ø	35mØ	112 †					A	TO22	F
96	2N214A	180m	100k	3.0m	J	40	25	10	100m	50u	1.5Ø	35mØ	100	50u	500	10	28p	A	TO5	
97	2N213A	180m	150k	2.5m	ØJ	40	25 §	10	100m	50u	6.0Ø	1.0mØ	185	50uØ	5.5k		10p	A	TO22	F
98	2N228	180m	.60M	3.3m	#J	40	15 §	10	100m	100u	6.0Ø	1.0mØ	80		2.3k			A	TO22	F
99	2N229	180m	.60MΔ	3.0m	#J	10	10 §	20	100m	100u	6.0Ø	1.0mØ	75					A	TO22	F
100	2N306	180m	.60MΔ	3.0m	#J	20	15 §	10	100m	50u	6.0Ø	1.0mØ	75					A	TO22	F
101	2N214	180m	.80M	3.0m	#J	40	25	10	100m	50u	1.5Ø	35mØ	75 †	50uØ	500	10 Ø	28p	A	TO22	F
102	2N213	180m	3.0M	2.5m	#	40	25 §	10	100m	50u	6.0Ø	1.0mØ	80	50uØ	5.5k	10		A	TO22	F
103	2N587	200m		2.5m	#J	40	30	40	200m	10u	.35Ø	200mØ	20 Δ				30pØ	AΔ	TO5	A§
104#	2SD167	200m		3.3m	#J	20	20 Ø	2.5	500m	20uØ	1.0Ø	150mØ	120					A	R16	
105#	2SD186	200m				20			150m	15u	1.5Ø	10mØ	150					A	TO1	
106#	2SD187	200m				25			150m	15u	1.5Ø	30mØ	150					A	TO1	
107#	AC172	200m	2.5M§	2.7m	#	32	32	10	10m	10u	5.0	.50m	45 Δ					A	TO1	
108#	AC183	200m	3.5M§	3.3m	#J	32	18 §	10	150m	20uØ	6.0Ø	1.0m	50 Δ						TO1	
109	2N1605A	200m	6.0M	2.6m	#	40		12	100m	10u	.25Ø	20m	60 †				15p	AΔ	TO5	A
110	2N576†	200m	8.0M	2.7m	#J	20		15	400m	10u	.40Ø	400mØ	30 †				15p	A	TO5	A§

3. GERMANIUM NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC-TURE	DWG. No.	L C E O A D D E
1	2N576A†	200m	8.0M	2.7m	#J	40		15	400m	40u	.40Ø	400mØ	30 †				15p	A	TO5	A§
2#	NKT781	215m		3.3m	#J	32		5.0	1.0	30uØ	0.0Ø	50mØ	52 †Δ						TO1	A
3#	AC186	215m	.02M†	3.3m	#J	30	18	10	700m	10uØ	2.0Ø	150mØ	60 †Δ					A	R60	
4#	AC141	220m	3.0M	3.3m	#J	32	32 Ø	10	1.2	14uØ		400m	80 †					A	TO1	
5#	AC141B	220m	3.0M	3.3m	#J	25	25 Ø	10	1.2	14uØ	6.0	1.0m	100					A	TO1	
6#	AC141H	220m	3.0M	3.3m	#J	50		10	1.2	14uØ		400m	80 †					A	TO1	
7#	2SD178	225m	1.5M	4.5m	ØJ	20		6.0	300m	27uØ	.50	300m	90					A	R43	
8#	2SD178A	225m	1.5M	4.5m	ØJ	40		6.0	300m	27uØ	.50	300m	90					A	R43	
9#	AC185	225m	4.0M§	3.0m	#S	32	24 §	10	500m	20uØ	1.0Ø	200mØ	110 †*					A	R134	
10	JAN2N1173	250m		3.3m	#S	35	20	35	200m	10uØ	10Ø	500uØ	50 Δ				25pⓅ		TO29	A
11#	2SD127	250m			#J	23	20 §		500m	20uØ	1.0Ø	20mØ	82 †					A	TO1	
12#	2SD127A	250m			#J	23	20 §		500m	20uØ	1.0Ø	500mØ	46 †#Δ					A	TO1	
13#	2SD128	250m			#J	32	30 §		500m	20uØ	1.0Ø	20mØ	82 †					A	TO1	
14#	2SD128A	250m			#J	32	30 §		500m	20uØ	1.0Ø	500mØ	46 †#Δ					A	TO1	
15#	SFT377	250m	1.0M§Δ	3.3m	#S		16	10	600m	10uØ	1.0Ø	300mØ	50 †*						TO1	
16#	2SD34	250m	2.0M	4.2m	#J	20	15 §	2.5	150m	14uØ	6.0Ø	1.0m	60	20u	1.8k	5.0		A	TO7	
17#	2SD38	250m	2.0M	4.2m	#J	30	20 §	12	150m	16u	6.0Ø	1.0m	60 *	20u	1.8k	5.0	45p	A	TO7	
18	2N1473	250m	8.0M	4.2m	#J	40	40 §	15	400m	5.0uØ	.60Ø	400m	50 †				15p	A	TO5	A§
19#	AC175	260m	.02M†	4.0m	#J	25	18	10	1	35uØ	1.0Ø	300mØ	150 †					A	X9	
20#	AC179	260m	.02M†	4.0m	#J	20	15	10	700m	10uØ	2.0Ø	150mØ	60 †Δ					A	X9	
21#	AC141H-K	260m	3.0M	4.0m	#J	50		10	1.2	14uØ		400m	80 †					A	TO1	
22#	AC141K	260m	3.0M	4.0m	#J	32	32 Ø	10	1.2	14uØ		400m	80 †					A	TO1	
23	2N2430	280m	2.5M§	2.7m	#	32	32	10	500m	10u	0.0	50m	105				70p	A	TO1	A
24#	2SD30	300m				25			200m	15u	1.5Ø	100m	150					A	TO1	
25#	AC181	300m	1.0M§Δ	4.0m	#S	32	24 §	10	1.0	200n	1.0Ø	600mØ	110 †#*					A*	R134	
26	40396/N	300m#Ø	2.0M	10m	#J	18	18 §	2.5	500m	14uØ	1.0Ø	50mØ	50 †Δ						TO1	
27#	2SD96	300m	4.0M			25	18 §	2.5	250m	14u	1.5Ø	50mØ	90 †							
28#	AC127	340m	2.5M§	2.7m	#J	32	32 §	10	500m	10uØ	0.0	20mØ	50 †Δ					A	TO1	
29	ASY73†	500m	4.0M§Δ	2.9m	#	30	20	30	400m	3.0u	0.0	.05m	25 †Δ					A	TO5	
30	ASY74†	500m	6.0M§Δ	2.9m	#	30	20	30	400m	3.0u	0.0	.05m	40 †Δ					A	TO5	
31	ASY75†	500m	10M§Δ	2.9m	#	30	20	30	400m	3.0u	0.0	.05m	65 †Δ					A	TO5	
32#	AC176	700m	1.0M§Δ	25m	#J	32	32	5.0	1	30uØ	0.0	500m	180 †Δ					A	TO1	
33#	AC187	800m	1.5M§	13m	#J	25	15	10	1	100u	1.0Ø	300mØ	200 †				150p$	A	R51a	A
34#	AC188/01	800m	1.5M§	6.3u	#J	25	15	10	1	15uØ	1.0Ø	50mØ	165 †				110p$	A	X9c	A
35#	AC187K	800m	3.0M§	13m	#J	25	15	10	1	200u									X9a	
36#	AC187/01	800m*	5.0M§	100m	#J	25	15		2 #		1.0Ø	300mØ	200 †					A	X9c	A

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1▼	TD500*		20M§Δ			40	30	5.0				100uØ	120 Δ†					Ø	L17w	
2▼	TD501*		20M§Δ			40	30	5.0				100uØ	120 Δ†					Ø	L17w	
3▼	TD502*		20MΔ§			40	30			10m		100uØ	120 Δ†				10p$		L17w	
4▼	TD550*		20M§Δ			40	30	5.0				100uØ	120 Δ†					Ø	L17w	
5#	BC303	7.0m		40u		90	65	7.0	1.0	20nØ	10Ø	150m	60					PLΔ	TO39	
6#	2S326Ø	50m	1.0M	400u	§J	6.0	6.0	6.0	10m	10n	3.0	1.0m	80				40p	A	R51	
7#	2S306Ø	50m	1.5M§Δ	400u	§J	6.0	6.0	6.0	10m	10n	3.0	1.0m	80					A	TO5	
8#	2S307Ø	50m	2.0M§		§A	15	15	15	10m	10u	3.0	1.0m	80					A	TO5	
9#	2S327Ø	50m	2.0M§		§A	15	15	15	10m	10u	3.0	1.0m	80					A	R51	
10#	BC200	50m	9.0M§	625u	♦J	20	20		50m		.50Ø	2.0mØ	200 †	18u	15			PE		
11#	BC196A	50m*	130M§	625u	♦J	30	25	5.0	100m	50nØ	5.0Ø	2.0mØ	125 Δ				4.0p$	PE†	u47	B
12#	BC196B	50m*	130M§	625u	♦J	30	25	5.0	100m	50nØ	5.0Ø	2.0mØ	240 Δ				4.0p$	PE†	u47	B
13#	BC196VI	50m*	130M§	625u	♦J	30	25	5.0	100m	50nØ	5.0Ø	2.0mØ	75 Δ				4.0p$	PE†	u47	B
14#	BFS14E	60m		1.6m	♦J	40	40	5.0		50n	5.0Ø	1.0mØ	70 Δ				7.0pØ	PE		D
15#	BFS14F	60m		1.6m	♦J	40	40	5.0		50n	5.0Ø	1.0mØ	70 Δ				7.0pØ	PE		E
16#	BFS14G	60m		1.6m	♦J	40	40	5.0		50n	5.0Ø	1.0mØ	70 Δ				7.0pØ	PE		F
17#	BFS26E	60m		1.6m	♦J	20	20	5.0		150n	1.0Ø	10mØ	50 Δ				7.0pØ	PE		D
18#	BFS26F	60m		1.6m	♦J	20	20	5.0		150n	1.0Ø	10mØ	50 Δ				7.0pØ	PE		E
19#	BFS26G	60m		1.6m	♦J	20	20	5.0		150n	1.0Ø	10mØ	50 Δ				7.0pØ	PE		F
20#	BFS16E	75m		1.3m	♦J	40	30	5.0		50n	10Ø	10mØ	30 Δ				10pØ	PE		D
21#	BFS16F	75m		1.3m	♦J	40	30	5.0		50n	10Ø	10mØ	30 Δ				10pØ	PE		E
22#	BFS16G	75m		1.3m	♦J	40	30	5.0		50n	10Ø	10mØ	30 Δ				10pØ	PE		F
23#	FSP270-1	75m	150M§		♦J	20	15	4.0		25nØ	1.0Ø	10mØ	75 †				10pØ	PEΔ	u14	E
24#	BCZ13	85m#	500k§Δ	833u	§J	20	20	20	10m	10nØ	2.0	1.0m	25				40pØ	A	R19	
25#	BCZ14	85m#	500k§Δ	833u	§J	20	20	20	10m	10nØ	2.0	1.0m	55				40pØ	A	R19	
26♦	D30A1	90m			#J	18	18	4.0	500m	25n	5.0Ø	10mØ	30 †Δ				6.0 Ø$	PE†	u40	D
27♦	D30A2	90m			#J	18	18	4.0	500m	25n	5.0Ø	10mØ	60 †Δ				6.0 Ø$	PE†	u40	D
28♦	D30A3	90m			#J	18	18	4.0	500m	25n	5.0Ø	10m	40 †Δ				6.0 Ø$	PE†	u40	D
29	3N112Ø	100m	6.0M§Δ	1.0m	§S	50			20m	10nØ							10pØ	Δ	L38	
30	3N123Ø	100m	6.0M§Δ	571u	§S	30		25	20m	10nØ							10pØ		TO72	GDØ
31	2N2177	100m	8.0M	666u	§J	6.0	6.0	6.0	50m	1.0nØ	1.5Ø	20uØ	50 †		60k		10p	AØ	TO5	A
32	2N2178	100m	8.0M	666u	§J	6.0	6.0	6.0	50m	1.0nØ	1.5Ø	20uØ	50 †		60k		10p	AØ	TO18	A
33	2N2175	100m	10M§Δ	666u	§J	6.0	6.0	6.0	50m	1.0nØ	1.5Ø	20uØ	50 †		60k		10p	AØ	TO5	A
34	2N2176	100m	10M§Δ	666u	§J	6.0	6.0	6.0	50m	1.0nØ	1.5Ø	20uØ	50 †		60k		10p	AØ	TO18	A
35	3N113Ø	100m	12M§Δ	1.0m	§S	50			20m	10nØ							10pØ	Δ	L38	
36	2N1677Ø	100m	32M§	833u	§S	4.5	4.5		50m	100n	3.0Ø	1.0mØ	50	1.5ub	40		7.0p	A	TO5	A
37	2N1676Ø	100m	42M§	833u	§S	4.5	4.5		50m	100n	3.0Ø	1.0mØ	10				7.0p	A	TO5	A
38	TNT1132	100m	50M§Δ	666u	§J	50	35 Ø	5.0		1.0uØ	10Ø	150mØ	30 †#Δ				45pØ	ME	u17	
39#	MT0411	100m	60M§Δ	8.0m	§J	60	45	6.0	100m	10nØ	5.0Ø	1.0mØ	100 †Δ	1.0uØb	32 Ø	6.0 Ø	5.0pØ	PEΔ	R110	A
40#	MT0412	100m	60M§Δ	8.0m	§J	60	45	6.0	100m	10nØ	5.0Ø	1.0mØ	200 †Δ	1.0uØb	32 Ø	6.0 Ø	5.0pØ	PEΔ	R110	
41#	MT0413	100m	60M§Δ	8.0m	§J	40	25	5.0	100m	50nØ	5.0Ø	1.0mØ	60 †Δ	1.0uØb	40 Ø	10 Ø	8.0pØ	PEΔ	R110	
42	TNT1131	100m	60M§Δ	666u	§J	50	35 Ø	5.0		1.0uØ	10Ø	150mØ	20 †#Δ				45pØ	ME	u17	
43#	MT0404	100m	200M§Δ	8.0m	§J	25	25	4.0	500m	100nØ	5.0Ø	50mØ	30 †Δ				12pØ	PEΔ		
44#	MT0404-1	100m	200M§Δ	8.0m	§J	40	30 Ø	5.0	500m	50nØ	1.0Ø	50mØ	30 †Δ				10pØ	PEΔ		
45#	MT0404-2	100m	200M§Δ	8.0m	§J	40	30 Ø	5.0	500m	50nØ	1.0Ø	50mØ	75 †Δ				10pØ	PEΔ		
46▼	BCW29	110m	150M§	1.0m	♦J	30	20	5.0	50m	100nØ	5.0Ø	10uØ	90 †				7.0p$Ø	PE		
47▼#	BCW29R	110m	150M§	1.1m	♦J	30	20	5.0	50m	100nØ	5.0Ø	10uØ	90 †				7.0p$Ø	PE†	u56	C
48▼	BCW30	110m	150M§	1.0m	♦J	30	20	5.0	50m	100nØ	5.0Ø	10uØ	150 †				7.0p$Ø	PE		
49▼#	BCW30R	110m	150M§	1.1m	♦J	30	20	5.0	50m	100nØ	5.0Ø	10uØ	150 †				7.0p$Ø	PE†	u56	C
50#	BFV34Ø	150m		1.1m	§S	15	10	15	100m	10n	.50Ø	1.0mØ	80 Δ				10pØ	PE	u34b	P
51#	BFV35Ø	150m		1.1m	§S	25	20	25	100m	10n	.50Ø	1.0mØ	40 Δ				10pØ	PE	u34b	P
52#	BFV36Ø	150m		1.1m	§S	40	35	40	100m	10n	.50Ø	1.0mØ	30 Δ				10pØ	PE	u34b	P
53#	PL1031	150m		1.0m	§J	60	40 *	5.0		20nØ	10Ø	1.0mØ	25 †Δ				8.0pØ	PEΔ	u50	E
54#	PL1032	150m		1.0m	§J	60	60 *	5.0		10nØ	10Ø	1.0mØ	40 †Δ				8.0pØ	PEΔ	u50	E
55#	PL1033	150m		1.0m	§J	60	40 *	5.0		20nØ	10Ø	1.0mØ	50 †Δ				8.0pØ	PEΔ	u50	E
56#	PL1034	150m		1.0m	§J	60	60 *	5.0		10nØ	10Ø	1.0mØ	100 †Δ				8.0pØ	PEΔ	u50	E
57#	PL1101	150m		1.0m	§J	25	20 *				.50Ø	10mØ	20 †Δ				5.0pØ	PEΔ	u50	E
58#	PL1102	150m		1.0m	§J	25	20 *				.50Ø	10mØ	40 †Δ				5.0pØ	PEΔ	u50	E
59#	PL1103	150m		1.0m	§J	25	20 *				1.0Ø	10mØ	15 †Δ				5.0pØ	PEΔ	u50	E
60#	PL1104	150m		1.0m	§J	25	20 *				1.0Ø	10mØ	30 †Δ				5.0pØ	PEΔ	u50	E
61	SA537	150m			§J	25	20		50m	100nØ	.50Ø	5.0mØ	10 †Δ				9.0pØ		TO1	
62	SA538	150m			§J	10	6.0		50m	100nØ	.50Ø	5.0mØ	10 †Δ				9.0pØ		TO1	
63	SA539	150m			§J	25	20		50m	10nØ	.50Ø	5.0mØ	10 †Δ				9.0pØ		TO18	
64	SA540	150m			§J	10	6.0		50m	10nØ	.50Ø	5.0mØ	10 †Δ				9.0pØ		TO18	
65	2N923	150m	800kΔ	833u	§	40	25	40	50m	50u	6.0Ø	1.0mØ	21	40ub	2.1k	75 Ø	20pØ	A	TO18	A
66	2N924	150m	800kΔ	833u	§	40	25	40	50m	50u	6.0Ø	1.0mØ	47	40ub	2.1k	75 Ø	20pØ	A	TO18	A
67	2N925	150m	800kΔ	833u	§	50	40	50	50m	50u	6.0Ø	1.0mØ	17	40ub	2.1k	75 Ø	20pØ	A	TO18	A
68	2N926	150m	800kΔ	833u	§	50	40	50	50m	50u	6.0Ø	1.0mØ	38	40u	2.1k	75 Ø	20pØ	A	TO18	A
69	2N927	150m	800kΔ	833u	§	70	60	70	50m	50u	6.0Ø	1.0mØ	15	40u	2.1k	75 Ø	20pØ	A	TO18	A
70	2N928	150m	800kΔ	833u	§	70	60	70	50m	50u	6.0Ø	1.0mØ	34	40u	2.1k	75 Ø	20pØ	A	TO18	A
71	2N2332	150m	1.0M	1.0m	§J	15	5.0	15	100m	50u							20pØ	A	TO18	A
72	2N2333	150m	1.0M	1.0m	§J	15	5.0	15	100m	50u							20pØ	A	TO18	A
73	2N2334	150m	1.0M	1.0m	§J	30	15	30	100m	50u							20pØ	A	TO18	A
74	2N2335	150m	1.0M	1.0m	§J	30	15	30	100m	50u							20pØ	A	TO18	A
75	2N2336	150m	1.0M	1.0m	§J	50	35	50	100m	50u							20pØ	A	TO18	A
76	2N2337	150m	1.0M	1.0m	§J	50	35	50	100m	50u							20pØ	A	TO18	A
77	2N2372	150m	1.0M	714u	§J	15	15	15	50m	50u	4.0Ø	25uØ	15 Δ				15pØ	AØ	TO18	A
78	2N2373	150m	1.0M	714u	§J	15	15	15	50m	50u	4.0Ø	25uØ	20 Δ				15pØ	AØ	TO18	A
79	NS665	150m	1.0M§Δ	833u	§J	30	15	30		1.0uØ	6.0Ø	1.0m	50 Δ					DE	TO18	AØ
80	NS666	150m	1.0M§Δ	833u	§J	40	35	35		1.0uØ	6.0Ø	1.0m	24 Δ					DE	TO18	AØ
81	NS667	150m	1.0M§Δ	833u	§J	50	35	35		1.0uØ	6.0Ø	1.0m	15 Δ					DE	TO18	AØ
82	NS668	150m	1.0M§Δ	833u	§J	50	50	40		1.0uØ	6.0Ø	1.0m	7.0 Δ					DE	TO18	AØ
83	2N2274Ø	150m	6.0M§Δ	1.3m	§S	25	25	25	50m	3.0uØ	.50Ø	5.0mØ	10 †Δ				9.0pØ		TO18	A
84	2N2275Ø	150m	6.0M§Δ	1.3m	§S	25	25	25	50m	3.0uØ	.50Ø	5.0mØ	10 †Δ				9.0pØ		TO18	A
85	2N2276Ø	150m	6.0M§Δ	1.3m	§S	15	10	15	50m	3.0uØ	.50Ø	5.0mØ	10 †Δ				9.0pØ		TO18	A
86	2N2277Ø	150m	6.0M§Δ	1.3m	§S	15	10	15	50m	3.0uØ	.50Ø	5.0mØ	10 †Δ				9.0pØ		TO18	A
87	2N3317Ø	150m	6.4M§Δ	1.3m	§S	30	30	30	50m	1.0nØ	6.0Ø	1.0m	1.6				9.0pØ		R98	
88	SA313	150m	7.0M§Δ		§J	30	20		50m	10nØ			6.0 †Δ				6.0pØ	PAØ	TO5	
89	SA314	150m	7.0M§Δ		§J	30	15		50m	20nØ			8.0 †Δ				6.0pØ	PAØ	TO5	
90	SA316	150m	7.0M§Δ		§J	30	10		50m	3.0nØ			10 †Δ				6.0pØ	PAØ	TO5	
91	SA413	150m	7.0M§Δ		§J	30	20		50m	10nØ			6.0 †Δ				6.0pØ	PAØ	TO18	
92	SA414	150m	7.0M§Δ		§J	30	15		50m	20nØ			8.0 †Δ				6.0pØ	PAØ	TO18	
93	SA416	150m	7.0M§Δ		§J	30	10		50m	3.0nØ			10 †Δ				6.0pØ	PAØ	TO18	
94	2N496	150m	7.2M§Δ	1.3m	§J	10	10		50m	100nØ	6.0Ø	1.0m	9.0 Δ	4.0uØb	100 Ø		12pØ	Δ	TO1	A
95	JAN2N1119†	150m	7.2M§Δ	1.3m	§S	12	10 #	12		100nØ	.50Ø	15mØ	15 †Δ				9.0pØ	Ø	TO5	A
96	JAN2N2378	150m	7.2M§Δ	1.3m	§S	10	10	10		100n	.50Ø	15mØ	15 †Δ				12pØ		TO18	A
97	2N2278Ø	150m	7.6M§Δ	1.3m	§S	15	15	15	50m	1.0uØ	.50Ø	5.0mØ	10 †Δ				9.0pØ		TO18	A
98	2N2279Ø	150m	7.6M§Δ	1.3m	§S	15	15	15	50m	1.0uØ	.50Ø	5.0mØ	10 †Δ				9.0pØ		TO18	A
99	2N3318Ø	150m	7.6M§Δ	1.3m	§S	15	15	15	50m	1.0nØ	6.0Ø	1.0m	1.9				9.0pØ		R98	
100	2N495	150m	8.0MΔ	1.3m	§J	25	25		50m	1.0nØ	6.0Ø	1.0m	9.0 Δ	2.5uØb	90 Ø		12pØ		TO1	A
101	JAN2N1118	150m	8.0M*Δ	1.3m	§S	25	25 #	20		1.0u	6.0	1.0m	15	2.5uØb	90 Ø		12pØ		TO18	AØ
102	JAN2N2377	150m	8.0M*	1.3m	§S	25	25	10		1.0u	6.0Ø	1.0m	15 Δ	2.5ub	90 Ø		12pØ		TO18	A
103	SA312	150m	8.0M§Δ		§J	30	10		50m	10nØ			10 †Δ				6.0pØ	PAØ	TO5	
104	SA315	150m	8.0M§Δ		§J	30	12		50m	20nØ			10 †Δ				6.0pØ	PAØ	TO5	
105	SA412	150m	8.0M§Δ		§J	30	10		50m	10nØ			10 †Δ				6.0pØ	PAØ	TO18	
106	SA415	150m	8.0M§Δ		§J	30	12		50m	20nØ			10 †Δ				6.0pØ	PAØ	TO18	
107	2N2185	150m	8.5M§Δ	1.3m	§S	30	30	30	50m	1.0uØ	.50Ø	5.0mØ	10				9.0pØ		TO18	A
108	2N2186Ø	150m	8.5M§Δ	1.3m	§S	30	30	30	50m	1.0uØ	.50Ø	5.0mØ	10				9.0pØ		TO18	A
109	2N2187	150m	8.5M§Δ	1.3m	§S	30	30	30	50m	1.0uØ	.50Ø	5.0mØ	10				9.0pØ		TO18	A
110	SA310	150m	10M§Δ		§J	30	10		50m	10nØ			30 †Δ				6.0pØ	PAØ	TO5	

SYMBOLS AND CODES
EXPLAINED IN INTERPRETER

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	SA311	150m	10M§Δ		$J	30	6.0		50m	10nØ			15 †Δ				6.0pØ	PAØ	TO5	
2	SA410	150m	10M§Δ		$J	30	10		50m	10nØ			30 †Δ				6.0pØ	PAØ	TO18	
3	SA411	150m	10M§Δ		$J	30	6.0		50m	10nØ			15 †Δ				6.0pØ	PAØ	TO18	
4	2N3319Ø	150m	12M§Δ	1.3m	$S	10	6.0	10	50m	3.0n	6.0Ø	1.0m	3.0				10pØ		R98	
5	2N858†	150m	14M§	1.3m	$A	40	40	25	50m	1.0u	.50Ø	5.0mØ	20 †	38u	1.4k	3.5	5.0p	PA	TO18	A
6	2N859†	150m	14M§	1.3m	$A	40	40	25	50m	1.0u	.50Ø	5.0mØ	35 †				5.0p	PA	TO18	A
7	2N860†	150m	14M§	1.3m	$A	25	25	20	50m	1.0u	.50Ø	5.0mØ	20 †				5.0p	PA	TO18	A
8	2N862†	150m	14M§	1.3m	$A	30		30		10nØ	.50Ø	5.0mØ	20 †				5.0p	PA	TO18	A
9	2N2280Ø	150m	16M§Δ	1.3m	$J	10	6.0	10	50m	3.0nØ	.50Ø	5.0mØ	10 †Δ				10pØ	E	TO18	A
10	2N1118A	150m	18M*	1.3m	$J	25	25	10	50m	1.0u	6.0Ø	1.0m	25	1.5ub	50		6.0p	A	TO5	A
11	2N2165	150m	18M§	1.3m	$S	30		30		20nØ	6.0Ø	1.0m	25				6.0p	S	TO5	A
12	2N2166	150m	18M§	1.3m	$S	15		15		20nØ	6.0Ø	1.0m	25				6.0p	S	TO5	A
13	2N1119†	150m	20M§	1.3m	$	10	10	10	50m	100n	.50	15m	25 †				6.0p	PA	TO5	A
14	2N2162Ø	150m	20M§	1.3m	$S	30		30		10nØ	3.0Ø	1.0m	35				6.0p	S	TO5	A
15	2N2163Ø	150m	20M§	1.3m	$S	15		15		10nØ	3.0Ø	1.0m	35				6.0p	A	TO5	A
16	2N2377	150m	20M§	1.3m	$S	25	25	10	50m	1.0u	6.0Ø	1.0mØ	15 Δ				12pØ	AΔ	TO18	A
17	2N2378	150m	20M§	1.3m	$S	10	10	10	50m	100n	.50Ø	15mØ	25 †				12pØ	AØ	TO18	A
18	2N1118	150m	21M*	1.3m	$	25	25	.10	50m	1.0u	6.0Ø	1.0m	30	35u	1.4k	3.5	6.0p	PA	TO5	A
19	2N861†	150m	22M§	1.3m	$A	25	25	20	50m	1.0u	.50Ø	5.0mØ	35 †				5.0p	PA	TO18	A
20	2N863†	150m	22M§	1.3m	$A	15	15	10	50m	1.0u	.50Ø	5.0mØ	35 †				5.0p	PA	TO18	A
21	2N864†	150m	22M§	1.3m	$A	6.0	6.0	6.0	50m	100nØ	.50Ø	5.0mØ	35 †				5.0p	PA	TO18	A
22▼#	2SA542	150m	30M§Δ		$J	30	25	5.0	50m	50n	10Ø	500uØ	160 †				8.0pØ	PE	u23a	C
23#	BFV25	150m	30M§Δ	1.1m	$S	60	45	6.0	30m	50nØ	5.0Ø	1.0m	60 Δ				6.0pØ	PEØ	u34b	P
24#	BFV26	150m	30M§Δ	1.1m	$S	60	45	6.0	30m	50nØ	5.0Ø	1.0m	150 Δ				6.0pØ	PEØ	u34b	P
25	NS6201	150m	30M§Δ	1.2m	$	35	35	5.0		10nØ	5.0Ø	100uØ	100 †Δ				6.0pØ	PLØ	X16	
26	2N2167	150m	36M§	1.3m	$S	12		12		20nØ	6.0Ø	1.0m	38				6.0p	S	TO5	A
27	2N2164Ø	150m	44M§	1.3m	$S	12		12		20nØ	3.0Ø	1.0m	40				6.0p	S	TO5	A
28	2N865†	150m	52M§	1.3m	$A	10	6.0	10	50m	100nØ	.50Ø	5.0mØ	75 †				5.0p	PA	TO18	A
29#	2SA429	150m	100M§		♦J	150	150 Ø	3.0	30m	1.0uØ	2.0Ø	2.0mØ	60 †				4.0p	PL	R67a	B
30#	2SA480	150m	140M§		§J	30	20	5.0	100m	3.0uØ	3.0Ø	1.0mØ	60 †				5.0pØ	PE	TO18	Ø
31#	BFV30†	150m	140M§Δ	1.1m	§J	20	15	4.0	100m	50n§	1.0Ø	50mØ	15 Δ				7.0pØ	PE	u34b	P
32#	BFV33	150m	140M§Δ	1.0m	§J	25	20	5.0	50m	1.0u	10Ø	10mØ	30 Δ				5.0pØ	D	u34b	P
33#	2SA564	150m	150M§	1.5m	♦J	25	25	5.0	50m	1.0uØ	5.0	2.0m	200 †					PE†	TO92	B
34#	2SA564A	150m	150M§	1.5m	♦J	45	45	5.0	50m	1.0uØ	5.0	2.0m	200 †					PE†	TO92	B
35#	BFV20	150m	150M§Δ	1.0m	§J	40	30	5.0	600m	50nØ	10Ø	150mØ	40 †Δ				10pØ	PE	u34b	P
36#	BFV21	150m	150M§Δ	1.0m	§J	40	30	5.0	600m	50nØ	10Ø	150mØ	100 †Δ				10pØ	PE	u34b	P
37#	BFV22	150m	150M§Δ	1.0m	§J	50	50	5.0	600m	50nØ	10Ø	1.0mØ	80 †Δ				10pØ	PE	u34b	P
38#	BFS32P	150m	200M	1.2m	$	45	45	5.0	200m	20n	10Ø	50mØ	30 †Δ				10p	PEØ	u17c	E
39#	BFS33P	150m	200M	1.2m	$	45	45	5.0	200m	20n	10Ø	2.0mØ	60 †Δ				10p	PEØ	u17c	E
40#	BFS34P	150m	200M	1.2m	$	45	30	5.0	200m	20n	10Ø	2.0mØ	100 †Δ				10p	PEØ	u17c	E
41	NS6205	150m	200M§Δ	1.2m	$A	30	30	5.0		20nØ	10Ø	10mØ	100 †Δ				8.0pØ	DE	X16	
42#	BFV31†	150m	350M§Δ	1.1m	§J	12	12	4.0	200m	150nØ	1.0Ø	30mØ	30 †Δ				8.0pØ	PE	u34b	P
43#	BFV32†	150m	350M§Δ	1.1m	§J	10	10	3.5	200m	200nØ	1.0Ø	30mØ	20 †Δ				8.0pØ	PE	u34b	P
44	2N4411	150m	400M§Δ	833u	§J	15	12	5.0	25m	5.0n#	.50Ø	500u	40 †Δ				700f$Ø	E	TO72	G
45#	BFV29†	150m	400M§Δ	1.1m	§S	20	15	5.0	200m	50n§	.50Ø	10mØ	30 †Δ				4.5p	PE	u34b	P
46#	BSV55AP†	150m	400M	1.2m	$						.50Ø	30mØ	30 †Δ				6.0p		u17c	E
47#	BSV55P†	150m	400M	1.2m	$						.50Ø	30mØ	40 †Δ				6.0p		u17c	E
48	2N4248	200m		2.0m	♦J	40	40	5.0	100m	10n	5.0Ø	1.0mØ	50 Δ				6.0p		R124	A
49	2N4249	200m		2.0m	♦J	60	60	5.0	100m	10nØ	5.0Ø	1.0mØ	100 Δ	5.0u	2.5k	10 Ø	6.0p	Ø	R124	A
50	2N4250	200m		2.0m	♦J	40	40	5.0	100m	10n	5.0Ø	1.0mØ	250 Δ	5.0u	6.0k	10 Ø	6.0p	Ø	R124	A
51▼	MM4261H	200m		1.1m	§J	15	15	4.5	30m								2.5pØ	Δ	TO72	DR
52#	BC153	200m	40 §Δ	2.0m	♦J	40	40	5.0		500p	5.0Ø	1.0mØ	135 †#				6.0pØ	DPLØ	R97a	
53	2N2370	200m	1.0M	1.1m	§J	15	15	15	50m	50u	4.0Ø	25mØ	15 Δ				15pØ	AØ	TO5	A
54	2N2371	200m	1.0M	1.1m	§J	15	15	15	50m	50u	4.0Ø	25mØ	20 Δ				15pØ	AØ	TO5	A
55▼#	2SA494GR	200m	10M§Δ	2.0m	♦J	35	30	5.0	30m	500nØ	6.0Ø	100u	220	2.8u	14k	1.0		PEØ	R67a	B
56▼#	2SA494O	200m	10M§Δ	2.0m	♦J	35	30	5.0	30m	500nØ	6.0Ø	100u	90	1.1u	8.0k	900m		PEØ	R67a	B
57▼#	2SA494Y	200m	10M§Δ	2.0m	♦J	35	30	5.0	30m	500nØ	6.0Ø	100u	140	1.6u	11k	950m		PEØ	R67a	B
58♦#	AT450Ø	200m	20MΔ§	1.6m	§J	30	30	5.0	50m	20nØ	10Ø	1.0mØ	60 †Δ				6.0pØ	PE	MM12a	D
59▼#	AT451	200m	20MΔ§	1.6m	§J	30	30	5.0	50m	20n	10Ø	100uØ	200 Δ				6.0pØ	PE	MM12a	D
60▼#	AT452	200m	20MΔ§	1.6m		45	45	5.0	50m	20n	10Ø	100uØ	60 Δ				6.0pØ	PE	MM12a	D
61▼#	AT453	200m	20MΔ§	1.6m	§J	45	45	5.0	50u	20n	10Ø	100uØ	200 Δ				6.0pØ	PE	MM12a	D
62	TD400*	200m	20M§Δ	1.6m	§J	40	30	5.0	500m	10nØ	5.0Ø	1.0mØ	120 Δ	500nØb	20		10pØ	PL†	L17m	
63	TD401*	200m	20M§Δ	1.6m	§J	40	30	5.0	500m	10nØ	5.0Ø	1.0mØ	120 Δ	500nØb	20		10pØ	PL†	L17m	
64	TD402*	200m	20M§Δ	1.6m	§J	40	30	5.0	500m	10nØ	5.0Ø	1.0mØ	120 Δ	500nØb	20		10pØ	PL†	L17m	
65	2N5138	200m	30M§Δ	2.0m	♦J	30	30	5.0	100m	50nØ	10Ø	1.0mØ	40 Δ				7.0p$		TO106	A
66#	BC154	200m	40M§Δ	2.0m	♦J	40	40	5.0		500p	5.0Ø	1.0mØ	330 †#				6.0pØ	DPLØ	R97a	
67	2N4964	200m	60M§Δ	2.0m	♦S	50	40	5.0	100m	25nØ	5.0Ø	1.0mØ	40 Δ	1.0ub	32 Ø	10 Ø	8.0p$	Ø	TO106	A
68	2N4965	200m	60M§Δ	2.0m	♦S	50	40	5.0	100m	25nØ	5.0Ø	1.0mØ	100 Δ	1.0ub	32 Ø	10 Ø	8.0p$	Ø	TO106	A
69	EN722	200m	60M§Δ	2.0m	♦J	50	35	5.0		1.0uØ	10Ø	150mØ	30 †#Δ	1.0uØb	35 Ø	8.0 Ø	45pØ	DPE	TO106	A
70#	ME0411	200m	60M§Δ	1.6m	§J	60	45	60	100m	10nØ	5.0Ø	1.0mØ	100 †Δ	1.0uØb	32 Ø	6.0 Ø	5.0pØ	PEΔ	R110	A
71#	ME0412	200m	60M§Δ	1.6m	§J	60	45	60	100m	10nØ	5.0Ø	1.0mØ	200 †Δ	1.0uØb	32 Ø	6.0 Ø	5.0pØ	PEΔ	R110	A
72#	ME0413	200m	60M§Δ	1.6m	§J	40	25	5.0	100m	50nØ	5.0Ø	1.0mØ	60 †Δ	1.0uØb	40 Ø	10 Ø	8.0pØ	PEΔ	R110	A
73▼#	ME0414	200m	60M§Δ	1.6m	§J	25	25	4.0	100m	50mØ	5.0Ø	1.0mØ	60 †Δ				9.0pØ	PEΔ	R124	
74▼#	BC225	200m	70M§	2.0m	▼J	40	40	5.0	100m	500nØ	5.0Ø	10mØ	90 †Δ	15m	6.1k	2.4	400f	DPL	TO106	
75	2N5143†	200m	100M§Δ	2.0m	♦J	20	20	4.0	500m	50n§	10Ø	300mØ	15 †#Δ				10p$		TO106	A
76#	2SA567	200m	100M§			30		4.0	100m	500n	6.0Ø	1.0mØ	300	25u	10k	4.0			TO1	
77▼	TP4257†	200m	100M§Δ				6.0				.30Ø	10mØ	30 Δ†				3.0p$		X93	A
78▼	TP4258†	200m	100M§Δ				12				.30Ø	10mØ	30 Δ†				3.0p$		X93	A
79	EN2907†	200m	150M§Δ	2.0m	♦J	60	40	5.0	600m	50nØ	10Ø	150mØ	100 †#Δ				8.0pØ	DPE	TO106	A
80	EN3504†	200m	150MΔ	2.0m	♦J	45	45	5.0	600m	10n§	10Ø	10mØ	135 Δ	1.2m	2.3k	15	8.0pØ	DPEØ	TO106	A
81	2N4971†	200m	200M§Δ	2.0m	♦S	50	40	5.0	500m	25n§	10Ø	150mØ	120 †#				8.0p$		TO106	A
82	2N4972†	200m	200M§Δ	2.0m	♦S	50	40	5.0	500m	25n§	10Ø	150mØ	300 †#				8.0p$		TO106	A
83#	2SA495	200m	200M§	2.0m	♦J	25	20	5.0	100m	1.0uØ	1.0Ø	10mØ	80 †				4.0p	PE	R67a	B
84#	2SA495G†	200m	200M§	2.0m	♦J	25	20	5.0	100m	1.0uØ	1.0Ø	10mØ	40 †Δ*				4.0p	PE†	R67a	B
85#	2SA530H†	200m	200M§Δ	1.3m	§J	50	35	5.0	100m	1.0uØ	1.0Ø	10mØ	120 Ø				8.0pØ	PE	TO18	A
86♦	2N3307	200m	300M§Δ	1.1m	§J	40	35	3.0	50m	10nØ	10Ø	2.0mØ	40 Δ				1.3pØ	Ø	R96	G
87♦	2N3308	200m	300M§Δ	1.1m	§J	30	25	3.0	50m	10nØ	10Ø	2.0mØ	25 Δ				1.6pØ	Ø	R96	G
88	2N5139†	200m	300M§Δ	2.0m	♦J	20	20	5.0	100m	50n§	10Ø	1.0mØ	40 †Δ				5.0p$		TO106	A
89	2N5141†	200m	300M§Δ	2.0m	♦J	6.0	6.0	4.0	100m	100n§	2.0	1.0mØ	15 †Δ				7.0p$Ø		TO106	A
90	MPS3639†	200m	300M§Δ	2.0m	♦J	6.0	6.0	4.0	80m	10n§	1.0Ø	50mØ	20 †#Δ				3.5pØ	E	X20b	
91	2N4121†	200m	400M§Δ	2.0m	♦J	40	40	5.0	100m	25n§	10Ø	1.0mØ	50 †Δ	24uØ	8.0	3.0	4.5p$	Ø	R110	A
92	2N4389†	200m	400M§Δ	2.0m	♦J	12	12	4.0	100m	100n#	1.0Ø	10mØ	180 †#				6.0pØ		R124	A
93	2N4916†	200m	400M§Δ	2.0m	♦J	30	30	5.0	100m	25n#	1.0Ø	1.0mØ	60 †Δ				4.5p$	Ø	R124	A
94	2N5140†	200m	400M§Δ	2.0m	♦J	5.0	5.0	4.0	50m	50n§	1.0Ø	10mØ	140 †#Ø				5.0p$		TO106	A
95#	2SA548	200m	400M§			50	35	5.0	100m	1.0u	6.0Ø	1.0mØ	100				3.0p	PE		
96	2N4122†	200m	450M§Δ	2.0m	♦J	40	40	5.0	100m	25n§	10Ø	1.0mØ	150 †Δ	40uØ	12	4.0	4.5p$	Ø	R110	A
97	2N4917†	200m	450M§Δ	2.0m	♦J	30	30	5.0	100m	25n#	1.0Ø	1.0mØ	150 †Δ				4.5p$	Ø	R124	AØ
98♦	2N3639†	200m	500M§Δ	2.0m	♦J	6.0	6.0	4.0	80m	50n§	1.0Ø	50mØ	20 †Δ#				3.5pØ		R110	A
99♦	2N3640†	200m	500M§Δ	2.0m	♦J	12	12	4.0	80m	50n§	1.0Ø	50mØ	20 †Δ#				3.5pØ		R110	A
100	2N4257†	200m	500M§Δ	2.0m	♦J	6.0	6.0	4.5	50m	10n	3.0Ø	10mØ	30 †Δ				3.0p$Ø		R110	A
101	2N5055†	200m	550M§Δ	2.0m	♦J	12	12	4.5	100m	50n§	.50Ø	1.0mØ	12 †Δ				4.5p$		R124	A
102	2N4258†	200m	700M§Δ	2.0m	♦J	12	12	4.5	50m	10n	3.0Ø	10mØ	30 †Δ				3.0p$Ø		R110	A
103	2N4313†	200m	700M§Δ	2.0m	♦J	12	12	4.5	100m	50nØ	.50Ø	30mØ	30 †Δ#				4.5p$		R124	A
104	2N4958	200m	1.0G§Δ	1.1m	§S	30	30	3.0	30m	100nØ	10Ø	2.0mØ	20 Δ				800f$	Ø	TO72	G
105	2N4959	200m	1.0G§Δ	1.1m	§S	30	30	3.0	30m	100nØ	10Ø	2.0mØ	20 Δ				800f$	Ø	TO72	G
106	2N4957	200m	1.2G§Δ	1.1m	§S	30	30	3.0	30m	100nØ	10Ø	2.0mØ	20 Δ				800f$	Ø	TO72	G
107	EN2894A†	200m	1.2G§	2.0m	♦J	12	12	4.5		50n§	1.0Ø	100mØ	30 †#Δ				4.5pØ	DPE	TO106	A
108	MD4957*	200m	1.5G§	1.1m	§J	30	30	3.0	30m	100nØ	10Ø	2.0mØ	20 Δ				400f$	ANØ	L17k	
109	2N4260	200m	1.6G§Δ	1.1m	§S	15	15	4.5	30m	5.0n#	1.0Ø	1.0mØ	25 †Δ				3.0p$Ø	Δ	TO72	G
110	2N4261	200m	2.0G§Δ	1.1m	§S	15	15	4.5	30m	5.0n#	1.0Ø	1.0mØ	25 †Δ				3.0p$Ø	Δ	TO72	G

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	[3] TYPE No.	[1] MAX. COLL. DISS. @25°C (W)	[2] fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	BC257	220m	130M§	2.2m	♦J		45	5.0	100m	100n§	5.0Ø	2.0mØ	260 ☑*	50u☑	4.5k☑	3.0p☑	6.0p$	PE	TO92	A
2#	BC258	220m	130M§	2.2m	♦J		25	5.0	100m	100n§	5.0Ø	2.0mØ	500 ☑*	70u☑	8.0k☑	3.5 ☑	6.0p$	PE	TO92	A
3#	BC259	220m	130M§	2.2m	♦J		20	5.0	100m	100n§	5.0Ø	2.0mØ	500 ☑*	70u☑	8.0k☑	3.5 ☑	6.0p$	PEØ	TO92	A
4#	BC157	220m	200M§	2.2m	♦J		45	6.0	100m	50n§	5.0Ø	2.0mØ	50 †Δ					PE†	MM10	AØ
5#	BC158	220m	200M§	2.2m	♦J		20	5.0	100m	100n§	5.0Ø	2.0mØ	50 †Δ					PE†	MM10	AØ
6#	BC159	220m	200M§	2.2m	♦J		20	5.0	100m	50n§	5.0Ø	2.0mØ	240 †Δ					PEØ	MM10	A
7	GT1644	225m	2.0M	1.8m	$S			12		10u	6.0Ø	1.0m	15	1.0ub	35	20		A	TO5	
8	MMT3798	225m	40M§Δ	2.0m	†J	60	60	3.0	50m	50nØ	10Ø	1.0mØ	275	18u	8.0k	2.0	4.0p☑	ANØ	u43	D
9	MMT3799	225m	40M§Δ	2.0m	†J	60	60	3.0	50m	50nØ	10Ø	1.0mØ	475	30u	16k	4.0	4.0p☑	ANØ	u43	D
10	A3T2906†	225m	200M§Δ	1.8m	$S	60	40	5.0	500m	20nØ	10Ø	1.0mØ	25 †Δ				12p☑	PE†	u44	A
11	A3T2906A†	225m	200M§Δ	1.8m	$S	60	60	5.0	500m	10nØ	10Ø	1.0mØ	40 †Δ				12p☑	PE†	u44	A
12	A3T2907†	225m	200M§Δ	1.8m	$S	60	40	5.0	500m	20nØ	10Ø	1.0mØ	50 †Δ				12p☑	PE†	u44	A
13	A3T2907A†	225m	200M§Δ	1.8m	$S	60	60	5.0	500m	10nØ	10Ø	1.0mØ	100 †Δ				12p☑	PE†	u44	A
14	MMT3905†	225m	200M§Δ	2.0m	†J	40	40	5.0	200m	50nØ	1.0Ø	10mØ	50 †Δ	15u	4.0k	2.0	5.0p☑	ANØ	u23c	F
15	MMT3906†	225m	250M§Δ	2.0m	†J	40	40	5.0	200m	50n	1.0Ø	10mØ	100 †Δ	15u	4.0k	2.0	5.0p☑	ANØ	u23c	F
16	MMT2907†	225m	260M§	2.0m	†J	60	40	5.0	600m	50nØ	10Ø	1.0mØ	50 †Δ				4.8p	ANT	u43	D
17	A3T2894†	225m	400M§Δ	1.8m	$S	12	12	4.0	200m	2.0u†Ø	.50Ø	30mØ	30 †Δ#				6.0p☑	PE†	u44	A
18	MMT2369†	225m	500M§Δ	2.0m	†J	40	15	4.5	200m	100nØ	1.0Ø	10mØ	120 †☑#				4.0p☑	AN	u43	D
19	MMT3546†	225m	700M§Δ	2.0m	†J	15	12	4.5	250m	100nØ	1.0Ø	10mØ	30 †Δ#				6.0p☑	AN	u43	C
20#	BCY29	230m*	500k	2.2m	$J	60	60	30	50	100nØ			25	30u	100	3.0	45p	A	TO5	
21	2N3342†	250m		1.6m	§S	20	8.0	20	50m	20nØ	1.0Ø	5.0mØ	30 †Δ				10p☑		TO5	A
22#	2SA539	250m		2.5m	♦J	60	45	5.0	200m	200nØ	10Ø	10mØ	40 †Δ						TO92	A
23▼#	2SA545	250m			$J	70	60	5.0	200m	100n	1.0Ø	50mØ	80 †					PE	TO92	B
24	2N3401Ø	250m	100k△	2.0m	§S	25	25	25	100m	100nØ	5.0Ø	1.0mØ	4.0 △				15p☑	△	TO5	A
25	2N327A	250m	200k	1.8m	$J	50	40	20	50m	100nØ	.50Ø	3.0mØ	15 †	35u	1.0k		70p	FA△	TO5	A
26	2N1034	250m	200k	1.8m	$J	50	40	20	50m	1.0uØ	6.0	1.0mØ	15	15u	900		70p	FA	TO5	A
27	2N1275	250m	200k	1.8m	$J	100	80	60	50m	1.0uØ	.50Ø	1.0mØ	15 †	11u	1.5k	7.5	60p	FA△	TO5	A
28	2N1655	250m	200k	1.8m	$J	125	100	125	50m	1.0uØ	.50Ø	1.0mØ	15 †	11u	1.5k	7.5	50p	FA△	TO5	A
29	2N1654	250m	250k	1.8m	$J	100	80	100	50m	1.0uØ	.50Ø	1.0mØ	30 †	11u	1.5k	7.5	50p	FA△	TO5	A
30	2N1656	250m	250k	1.8m	$J	125	100	125	50m	1.0uØ	.50Ø	1.0mØ	30 †	11u	1.5k	7.5	50p	FA△	TO5	A
31	2N328A	250m	300k	1.8m	$J	50	35	20	50m	100nØ	.50Ø	3.0mØ	30 †	40u	1.7k		70p	FA△	TO5	A
32	2N1035	250m	300k	1.8m	$J	50	50	20	50m	1.0uØ	6.0	1.0mØ	30	40u	1.7k		70p	FA	TO5	A
33	2N1037	250m	300k	1.8m	$J	50	35	20	50m	1.0uØ	6.0Ø	1.0mØ	25	20u	1.4k		70p	FA	TO5	A
34	2N1623	250m	300k	1.8m	$J	50	20	20	50m	1.0uØ	6.0Ø	1.0mØ	25 †	35u	1.0k		70p	FA△	TO5	A
35	2N1036	250m	500k	1.8m	$J	50	30	20	50m	1.0uØ	6.0	1.0mØ	60	50u	2.5k		70p	FA	TO5	A
36	SL404	250m	500k		$S	40	35	25	50m	12u	.50	100m	10 †Δ	50u	3.0k		10p☑	DPE	u29	
37	2N1643	250m	700k	1.8m	$J	25	25	20	50m	1.0nØ	6.0Ø	1.0mØ	18	35ub			50p	A	TO5	A
38	2N2002	250m	800k	1.6m	§J	30	5.0	30	100m	1.0n	6.0	1.0m					20p☑	A	TO5	A
39	2N2003	250m	800k	1.6m	§J	30	5.0	30	100m	3.0n	6.0	1.0m					20p☑	A	TO5	A
40	2N2004	250m	800k	1.6m	§J	50	15	50	100m	50u	6.0Ø	1.0mØ	12 †Δ				8.0p	A	TO5	A
41	2N2005	250m	800k	1.6m	§J	50	15	50	100m	50u	6.0	1.0m					10p☑	A	TO5	A
42	2N2006	250m	800k	1.6m	§J	60	35	60	100m	50u	6.0	1.0m					10p☑		TO5	A
43	2N2007	250m	800k	1.6m	§J	60	35	60	100m	5.0n	6.0	1.0m					10p☑	A	TO5	A
44	2N938	250m	1.0M△	1.6m	§J	40	35	40	100m	25nØ	6.0Ø	1.0m	15	1.4ub	35	10	7.0p	A	TO18	A
45	2N943Ø	250m	1.0M△	1.6m	§S	40	18	40	50m		6.0Ø	1.0mΔ	10 †Δ			25	7.0p	A	TO18	A
46	2N944Ø	250m	1.0M△	1.6m	§S	40	18	40	50m		6.0Ø	1.0mΔ	10 †Δ			25	7.0p	A	TO18	A
47	2N945Ø	250m	1.0M△	1.6m	§S	50	50	50	50m		6.0Ø	1.0mΔ	10 †Δ			25	7.0p	A	TO18	A
48	2N946Ø	250m	1.0M△	1.6m	§S	80	80	80	50m		6.0Ø	1.0mΔ	10 †Δ			25	7.0p	A	TO18	A
49	2N1024	250m	1.0M△	1.6m	§J	18	15	18	100m	25nØ	6.0Ø	1.0m	15	1.4ub	35	10	7.0p	A	TO5	A
50	2N1025	250m	1.0M△	1.6m	§J	40	35	40	100m	25nØ	6.0Ø	1.0m	15	1.4ub	35	10	7.0p	A	TO5	A
51	JAN2N1025M	250m	1.0M△	1.6m	§S	40	35	40		25nØ	6.0	1.0m	9.0 △	2.5u☑b	75 ☑	20 ☑	12p☑		TO5	A
52	2N1474	250m	1.0M△	1.6m	§J	60	60	60	100m	50nØ	6.0	1.0m	26	1.4ub	40	10	7.0p	A	TO5	A
53	2N1475	250m	1.0M△	1.6m	§J	60	60	60	100m	50nØ	6.0	1.0m	60	1.4ub	40	10	7.0p	A	TO5	A
54	2N1476	250m	1.0M△	1.6m	§J	100	100	100	100m	200nØ	6.0	1.0m	24	1.4ub	45	10	7.0p	A	TO5	A
55	2N1477	250m	1.0M△	1.6m	§J	100	100	100	100m	200nØ	6.0	1.0m	45	1.4ub	45	10	7.0p	A	TO5	A
56	2N1919Ø	250m	1.0M△	1.6m	§S	40	18	40	50m		6.0	1.0m					7.0p	AΔ	TO5	A
57	2N1920Ø	250m	1.0M△	1.6m	§S	40	18	40	50m		6.0	1.0m					7.0p	AΔ	TO5	A
58	2N1921Ø	250m	1.0M△	1.6m	§S	50	50	50	50m		6.0	1.0m					7.0p	AΔ	TO5	A
59	2N1922Ø	250m	1.0M△	1.6m	§S	80	80	80	50m		6.0	1.0m					7.0p	AΔ	TO5	A
60	BCZ10	250m	1.0M	2.0m	§J	25	25	20	50m	100nØ	6.0Ø	1.0m	20				45p	AØΔ	R8	
61	BCZ12	250m	1.0M	2.0m	§J	60	60	30	50m	100nØ	6.0Ø	1.0m	15				40p	AØΔ	R8	
62#	BCY30	250m	1.2M§	2.0m	§J	64	64	45	100m	50nØ	6.0Ø	1.0mØ	25	17u	1.1k	3.0		A	TO5	A
63	C106*	250m	1.2M	1.8m	§J	30	10	30	50m	100n	6.0Ø	1.0mØ	50				50p		TO5	AØ
64#	OC200	250m	1.2M§	2.0m	§J	30	25	20	50m	500n	6.0Ø	1.0mØ	28	24u	900	3.0		Ø	R8	
65#	OC203	250m	1.2M§	2.0m	§J	60	50	30	50m	1.5u	6.0Ø	1.0mØ	20					Ø	R8	
66#	BCY33	250m	1.5M§	2.0m	§J	32	32	16	100m	50nØ	6.0Ø	1.0mØ	25	17u	1.1k	3.0		A	TO5	A
67#	BCZ11	250m	1.5M§	2.0m	§J	30	25	20	50m	500n	6.0Ø	1.0mØ	35	23u	1.1k	3.0		Ø	R8	
68#	BCY31	250m	1.7M§	2.0m	§J	64	64	45	100m	50nØ	6.0Ø	1.0mØ	35	25u	1.4k	6.0		A	TO5	A
69	2N939	250m	2.0M△	1.6m	§J	40	35	40	100m	25nØ	6.0Ø	1.0m	30	1.4ub	35	10	7.0p	AΔ	TO18	A
70	2N940	250m	2.0M△	1.6m	§J	40	35	40	100m	25nØ	6.0Ø	1.0m	60	1.4ub	35	10	7.0p	AΔ	TO18	A
71	2N1026	250m	2.0M△	1.6m	§J	40	35	40	100m	25nØ	6.0Ø	1.0m	30	1.4ub	35	10	7.0p	A	TO5	A
72	JAN2N1026M	250m	2.0M△	1.4m	§S	40	35	40		25nØ	6.0	1.0m	18 △	2.5u☑b	75 ☑	20 ☑	12p☑		TO5	
73	2N1220	250m	2.0M△	1.6m	§J	30	25	20	100m	100nØ	.25Ø	5.0mØ	9.0 †Δ				18p☑	A	TO5	A
74	2N1222	250m	2.0M△	1.7m	§J	30	25	10	100m	.10uØ	6.0Ø	1.0m	9.0 △				18p☑	A	TO5	A
75	2N1223	250m	2.0M	1.7m	§J	40	40	10	100m	.10uØ	6.0Ø	1.0m	6.0 △				15p	A	TO5	A
76	2N1469	250m	2.0M△	1.6m	§J	40	35	40	100m	25nØ	6.0Ø	1.0m	60	1.4ub	35	10	7.0p	A	TO5	A
77	JAN2N1469M	250m	2.0M△	1.4m	§S	40	35	40		25nØ	6.0	1.0m	36 △	2.5u☑b	75 ☑	20 ☑	12p☑		TO5	A
78	2N1474A	250m	2.0M△	1.6m	§J	60	60	60	100m	50nØ	6.0	1.0m	30	1.4ub	40	10	7.0p	A	TO5	A
79	2N1917Ø	250m	2.0M△	1.7m	§S	25	8.0	25	50m	2.5n	6.0	1.1m	50				7.0p	AΔ	TO5	A
80	2N3343Ø	250m	2.0M§Δ	1.7m	§S	25	8.0	25	50m	3nØ	.50Ø	.25mØ	20 †Δ				25p☑	△	TO5	A
81	2N3344Ø	250m	2.0M§Δ	1.7m	§S	30	30	30	50m	2nØ	.50Ø	1.0mØ	25 †Δ				25p☑	△	TO5	A
82	2N3345Ø	250m	2.0M§Δ	1.7m	§S	50	50	50	50m	5nØ	.50Ø	1.0mØ	15 †Δ				25p☑	△	TO5	A
83	2N3346Ø	250m	2.0M§Δ	1.7m	§S	50	50	50	50m	5nØ	.50Ø	1.0mØ	25 †Δ				25p☑	△	TO5	A
84#	BCY34	250m	2.4M§	2.0m	§J	32	32	16	100m	.05uØ	6.0Ø	1.0mØ	35	25u	1.4k	6.0		A	TO5	A
85#	BCY32	250m	2.5M§	2.0m	§J	64	64	32	100m	.05uØ	6.0Ø	1.0mØ	55	30u	1.7k	5.0		A	TO5	A
86#	OC201	250m	3.2M§	2.0m	§J	25	20	20	50m	.50u	6.0Ø	1.0mØ	40	80u☑	2.5k☑	7 ☑		Ø	R8	
87#	OC202	250m	3.2M§	2.0m	§J	15	10	10	50m	.50u	6.0Ø	1.0mØ	70	42u	2.1k	6.0		Ø	R8	
88	2N1027	250m	4.0M△	1.6m	§J	18	15	18	100m	25nØ	6.0Ø	1.0m	30	1.4ub	35	10	7.0p	A	TO5	A
89	2N1219	250m	5.0M△	1.7m	§J	30	25	20	100m	.10uØ	.25Ø	5.0mØ	18 †Δ				15p☑	A	TO5	A
90	2N1221	250m	5.0M△	1.7m	§J	30	25	10	100m	.10uØ	6.0Ø	1.0m	18 △				15p☑	A	TO5	A
91	2N1028	250m	6.0M	1.6m	§J	18	10	12	100m	25nØ	6.0Ø	1.0m	9.0 △	1.4ub	35	10	7.0p	A	TO5	A
92	2N942Ø	250m	10.M△	1.7m	§S	25	8.0	25	50m	2.5uØ	6.0	1.0m	50			25	7.0p	A	TO18	A
93	2N1918Ø	250m	10.M△	1.7m	§S	25	8.0	25	50m	2.5n	6.0	1.0m	50				7.0p	AΔ	TO5	A
94	2N941Ø	250m	12.M△	1.7m	§S	25	8.0	25	50m	2.5uØ	6.0	1.0m	50			25	7.0p	A	TO18	A
95	2N3812*	250m	30M§Δ	1.5m	§S	60	60	5.0	50m	.01uØ	10Ø	1.0mØ	150 △	60u☑	15k☑	25 ☑	4p☑	Ø	L17s	
96	2N3813*	250m	30M§Δ	1.5m	§S	60	60	5.0	50m	.01uØ	10Ø	1.0mØ	300 △	60u☑	40k☑	25 ☑	4p☑	Ø	L17s	
97	2N3814*	250m	30M§Δ	1.5m	§S	60	60	5.0	50m	.01uØ	10Ø	1.0mØ	150 △	60u☑	15k☑	25 ☑	4p☑	*Ø	L17s	
98	2N3815*	250m	30M§Δ	1.5m	§S	60	60	5.0	50m	.01uØ	10Ø	1.0mØ	300 △	60u☑	40k☑	25 ☑	4p☑	*Ø	L17s	
99	2N3816*	250m	30M§Δ	1.5m	§S	60	60	5.0	50m	.01uØ	10Ø	1.0mØ	150 △	60u☑	15k☑	25 ☑	4p☑	*Ø	L17s	
100	2N3817*	250m	30M§Δ	1.5m	§S	60	60	5.0	50m	.01uØ	10Ø	1.0mØ	300 △	60u☑	40k☑	25 ☑	4p☑	*Ø	L17s	
101#	ZTX530	250m	30M△§	2.5m	♦A	30	30	5.0	500m	200n	5.0Ø	100uØ	60 △				8.0p☑	PLØ	X59	F
102#	ZTX531	250m	30M△§	2.5m	♦A	45	45	5.0	500m	200n	5.0Ø	1.0mØ	60 △				8.0p☑	PLØ	X59	F
103	2N4288	250m	40M§Δ	2.0m	$S	30	25	6.0	100m	50nØ	5.0	1.0m	600 ☑	1.2u☑b	40 ☑	10	8.0p☑		u29	
104	2N4289	250m	40M§Δ	2.0m	$S	60	45	7.0	100m	10nØ	5.0	1.0m	600 ☑	1.2u☑b	40 ☑	10	8.0p☑	Ø	u29	
105▼#	AT454	250m	40M△§	2.5m	♦J	30	30	5.0	50u	20n	10Ø	100uØ	60 △				6.0p☑	PE	MM12a	D
106▼#	AT455	250m	40M§Δ	2.5m	♦J	45	45	5.0	50u	20n	10Ø	100uØ	60 △				6.0p☑	PE	MM12a	D
107	2N2802*	250m	60M§Δ	1.6m	§S	25	20	5.0	30m	10n	5.0Ø	1.0mØ	20 △	1.0u☑b	32 ☑	12 ☑	8.0p☑	Ø	L17k	
108	2N2803*	250m	60M§Δ	1.6m	§S	25	20	5.0	30m	10n	5.0Ø	1.0mØ	20 △	1.0u☑b	32 ☑	12 ☑	8.0p☑	Ø	L17k	
109	2N2804*	250m	60M§Δ	1.6m	§S	25	20	5.0	30m	10n	5.0Ø	1.0mØ	20 △	1.0u☑b	32 ☑	12 ☑	8.0p☑	Ø	L17k	
110	2N2805*	250m	60M§Δ	1.6m	§S	25	20	5.0	30m	10n	5.0Ø	1.0mØ	40 △	1.0u☑b	32 ☑	12 ☑	8.0p☑	Ø	L17k	

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M A X	E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O D E
1	2N2806*	250m	60M§Δ	1.6m	§S		25	20	5.0	30m	10n	5.0Ø	1.0mØ	40 Δ	1.0uØb	32 Ø	12 Ø	8.0pØ	Ø	L17k		
2	2N2807*	250m	60M§Δ	1.6m	§S		25	20	5.0	30m	10n	5.1Ø	1.0mØ	40 Δ	1.0uØb	32 Ø	12 Ø	8.0pØ	Ø	L17k		
3	2N3800*	250m	100M§Δ	1.4m	§S		60	60	5.0	50m	.01uØ	10Ø	1.0mØ	150 Δ	60uØ	30kØ	25 Ø	4pØ	Ø	L17e		
4	2N3801*	250m	100M§Δ	1.4m	§S		60	60	5.0	50m	.01uØ	10Ø	1.0mØ	300 Δ	60uØ	40kØ	25 Ø	4pØ	Ø	L17e		
5	2N3802*	250m	100M§Δ	1.4m	§S		60	60	5.0	50m	.01uØ	10Ø	1.0mØ	150 Δ	60uØ	30kØ	25 Ø	4pØ	Ø	L17e		
6	2N3803*	250m	100M§Δ	1.4m	§S		60	60	5.0	50m	.01uØ	10Ø	1.0mØ	300 Δ	60uØ	40kØ	25 Ø	4pØ	Ø	L17e		
7	2N3804*	250m	100M§Δ	1.4m	§S		60	60	5.0	50m	.01uØ	10Ø	1.0mØ	150 Δ	60uØ	30kØ	25 Ø	4pØ	Ø	L17e		
8	2N3804A*	250m	100M§Δ	1.4m	§S		60	60	5.0	50m	10nØ	10Ø	1.0mØ	150 Δ	60uØ	30kØ	25 Ø	4.0pØ	Ø	L17e		
9	2N3805*	250m	100M§Δ	1.4m	§S		60	60	5.0	50m	.01uØ	10Ø	1.0mØ	300 Δ	60uØ	40kØ	25 Ø	4pØ	Ø	L17e		
10	2N3805A*	250m	100M§Δ	1.4m	§S		60	60	5.0	50m	.01uØ	10Ø	1.0mØ	300 Δ	60uØ	40kØ	25 Ø	4pØ	*Ø	L17e		
11	2N3816A*	250m	100M§Δ	1.5m	§S		60	60	5.0	50m	.01uØ	10Ø	1.0mØ	150 Δ	60uØ	15kØ	25 Ø	4pØ	*Ø	L17s		
12	2N3817A*	250m	100M§Δ	1.5m	§S		60	60	5.0	50m	.01uØ	10Ø	1.0mØ	300 Δ	60uØ	40kØ	25 Ø	4pØ	*Ø	L17s		
13	2N4290	250m	100M§Δ	2.0m	§S		30	20	5.0	600m	200nØ	5.0	1.0m	600 Ø	1.2uØb	40 Ø	10	10pØ		u29		
14	2N4291	250m	100M§Δ	2.0m	§S		40	30	6.0	600m	200nØ	5.0	1.0m	600 Ø	1.2uØb	40 Ø	10	10pØ		u29		
15#	ME0475	250m	100M§Δ	2.0m	§J		75		4.0		.50uØ	10Ø	10mØ	20 †Δ				10pØ	DP†	TO106	A	
16	MQ3799*	250m	100M§Δ	1.5m	§J		60	60	5.0	50m	.01uØ	10Ø	1.0mØ	500	12u	12k	2.5	4pØ	ANØ	L56c		
17	MQ3799A*	250m	100M§Δ	1.5m	§J		60	60	5.0	50m	.01uØ	10Ø	1.0mØ	500	12u	12k	2.5	4pØ	ANØ	L56c		
18#	BC158A	250m	150M§	2.5m	♦J		30	25	5.0	100m	100nØ	5.0Ø	2.0mØ	125 Δ				4.5p	PE†	MM10	A	
19#	BC158B	250m	150M§	2.5m	♦J		30	25	5.0	100m	100nØ	5.0Ø	2.0mØ	240 Δ				4.5p	PE†	MM10	A	
20#	BC159A	250m	150M§	2.5m	♦J		25	20	5.0	100m	100nØ	5.0Ø	2.0mØ	125 Δ				4.5p	PE†	MM10	A	
21#	BC159B	250m	150M§	2.5m	♦J		25	20	5.0	100m	100nØ	5.0Ø	2.0mØ	240 Δ				4.5p	PE†	MM10	A	
22#	2SA499	250m	200M§	1.7m	§J		25	20	5.0	100m	1.0uØ	1.0Ø	10mØ	60 †				4.0p	PE	TO18		
23#	2SA500	250m	200M§	1.7m	§J		50	40	5.0	100m	1.0uØ	1.0Ø	10mØ	70 †				4.0p	PE	TO18		
24#	2SA522	250m	200M§	1.7m	§J		25	20	5.0	100m	.10uØ	10Ø	10m	50				4.0p	PE	TO18		
25#	2SA522A	250m	200M§	1.7m	§J		50	40	5.0	100m	.10uØ	10Ø	10m	50				4.0p	PE	TO18		
26#	AT331	250m	200M§	2.5m	♦J		20	20	4.0	250m	.50u	2.0Ø	150m	35 #†Δ				25p	PL			
27#	AT332	250m	200M§	2.5m	♦J		60	50	4.0	500m	.50u	2.0Ø	150m	35 #†Δ				25p	PL			
28#	AT333	250m	200M§	2.5m	♦J		90	80	4.0	500m	.50u	2.0Ø	150m	35 #†Δ				25p	PL			
29	MD2904AF*	250m	200M§Δ	1.4m	§J		60	60	5.0	600m	.02u#Ø	10Ø	150mØ	40 †#				8pØ	ANΔ	L17d		
30	MD2904F*	250m	200M§Δ	1.4m	§J		60	40	5.0	600m	.02u#Ø	10Ø	150mØ	40 †#				8pØ	ANΔ	L17d		
31	MD2905AF*	250m	200M§Δ	1.4m	§J		60	60	5.0	600m	.02u#Ø	10Ø	150mØ	100 †#				8pØ	ANΔ	L17d		
32	MD2905F*	250m	200M§Δ	1.4m	§J		60	40	5.0	600m	.02u#Ø	10Ø	150mØ	100 †#				8pØ	ANΔ	L17d		
33	MD3133F*	250m	200M§Δ	1.4m	§J		50	35	4.0	600m	.05uØ	10Ø	150mØ	40 †#Δ				10pØ	ANΔ	TO89		
34	MD3134F*	250m	200M§Δ	1.4m	§J		50	35	4.0	600m	.05uØ	10Ø	150mØ	100 †#Δ				10pØ	ANΔ	TO89		
35	2N4940*	250m	300M§Δ	1.5m	§S		50	40	5.0	50m	.02uØ	10Ø	1.0mØ	50 Δ	50uØ	10kØ	10 Ø	5p$Ø	*Ø	L17d		
36	2N4941*	250m	300M§Δ	1.5m	§S		50	40	5.0	50m	.02uØ	10Ø	1.0mØ	50 Δ	50uØ	10kØ	10 Ø	5p$Ø	*Ø	L17d		
37♦#	ZTX510†	250m	400M§Δ	2.5m	♦A		12	12	4.0	200m#	100nØ	1.0Ø	100mØ	20 †Δ#				6.0pØ	PL†	X59	F	
38#	ME0461†	250m	450M§Δ	2.0m	§J		60	50	6.0	300m	10nØ	1.0Ø	10mØ	50 †Δ				6.0pØ	PE	R110	A	
39#	ME0462†	250m	450M§Δ	2.0m	§J		50	40	6.0	300m	10nØ	1.0Ø	10mØ	100 †Δ				6.0pØ	PE	R110	A	
40#	ME0463†	250m	450M§Δ	2.0m	§J		30	20	5.0	300m	10nØ	1.0Ø	10mØ	50 †Δ				8.0pØ	PE	R110	A	
41#	ME0491†	250m	500M§Δ	2.0m	§J		30	30 §	5.0	200m	10nØ	1.0Ø	30mØ	30 †Δ#				4.0pØ	PE	R110	A	
42#	ME0492†	250m	500M§Δ	2.0m	§J		25	25 §	5.0	200m	10nØ	1.0Ø	30mØ	50 †Δ#				4.0pØ	PE	R110	A	
43#	ME0493†	250m	500M§Δ	2.0m	§J		15	15 §	4.0	200m	10nØ	1.0Ø	30mØ	30 †Δ#				6.0pØ	PE	R110	A	
44	S3639	250m	500M§Δ	2.5m	♦S		6.0	6.0	4.0	80m	.01uØ	.30Ø	10mØ	30 †Δ				5.5pØ	PEΔ	TO92	B	
45	S3640	250m	500M§Δ	2.5m	♦S		12	12	4.0	80m	.01uØ	.30Ø	10mØ	30 †Δ				5.5pØ	PEΔ	TO92	B	
46#	BC201	260m	100M§	1.2m	♦J		5.0	5.0	5.0	50m	.10uØ	.50Ø	.25m	630 *Ø					PE	u32	B	
47#	BC202	260m	100M§	1.2m	♦J		30	20	5.0	50m	.10uØ	.50Ø	.25m	630 *Ø					PE	u32	B	
48#	BC203	260m	100M§	1.2m	♦J		45	30	5.0	50m	.10uØ	.50Ø	.25m	630 *Ø					PE	u32	B	
49	BCY27	275m	1.0M	2.2m	§J		30	25	30	50m	.10uØ	6.0Ø	1.0mØ	15 Δ	30u	1.0k	3.0	45p	AØ	TO5		
50	BCY28	275m	1.5M	2.2m	§J		30	25	30	50m	.10uØ	6.0Ø	1.0mØ	25 Δ	40u	1.4k	4.0	45p	AØ	TO5		
51	ST8709	300m		1.6m	§J		50	30	5.0		20nØ	5.0Ø	10mØ	80 †Δ				10p	PE	TO18	Ø	
52#	ZT182†	300m	150mΔ§	2.4m	§J		45	35	4.0	500m	500n	6.0Ø	1.0mØ	90				15pØ	PLØ	TO18	AØ	
53#	2S3210	300m	.10M§Δ				40	40	20	100m			10mØ	10 †Δ					A	R51		
54#	2S3220	300m	.15M§Δ				40	40	20	100m			10mØ	15 †Δ					A	R51		
55#	2S3221	300m	.15M§Δ				15	15	10	100m			10mØ	15 †Δ					A	R51		
56#	2CY30	300m	.25M§Δ	1.7m	§A		64	64	45	100m	20u	6.0Ø	1.0mØ	15 Δ				80pØ	A	TO5		
57#	2CY31	300m	.25M§Δ	1.7m	§A		64	64	45	100m	20u	6.0Ø	1.0mØ	25 Δ				80pØ	A	TO5		
58#	2S3230	300m	.25M§Δ				25	25	10	100m			10mØ	25 †Δ					A	R51		
59#	2S322A	300m	.35M§Δ				25	25	20	50m			10mØ	15 †Δ					A	R51		
60#	2CY32	300m	.40M§Δ	1.7m	§A		64	64	45	100m	20u	6.0Ø	1.0mØ	35 Δ				80pØ	A	TO5		
61#	2CY33	300m	.40M§Δ	1.7m	§A		32	32	16	100m	20u	6.0Ø	1.0mØ	15 Δ				80pØ	A	TO5		
62#	2S3240	300m	.40M§Δ				15	15	10	100m			10mØ	40 †Δ					A	R51		
63#	OC204	300m	.45M§Δ	2.5m	§J		32	32	12	250m	.50u	1.0Ø	150mØ	10 †Δ						R8		
64#	OC205	300m	.45M§Δ	2.5m	§J		60	60	12	250m	1.5uØ	1.0Ø	150mØ	10 †Δ						R8		
65#	2CY34	300m	.60M§Δ	1.7m	§A		32	32	16	100m	20u	6.0Ø	1.0mØ	25 Δ				80pØ	A	TO5		
66#	2S301	300m	.70M	1.7m	§J		80	60	30	100m	10u	6.0	1.0m	18				40p	A	TO5		
67#	2S305	300m	.70M	1.7m	§J		125	125	50	100m	10u	6.0	1.0m	15				40p	A	TO5		
68#	2S3010	300m	.70M§	1.7m	§S		40	40	20	100m	10u	6.0Ø	.10mØ	8.0	13u	525	2.0	40p	AØ	ZA11		
69#	2S325	300m	.75M	2.4m	▼J		125	125	50	50m	1.0u	6.0	1.0m	20				40p	A	R51		
70#	2S302	300m	.80M	1.7m	§J		40	25	20	100m	10u	6.0	1.0m	20				40p	A	TO5		
71#	2S302A	300m	.80M§	1.7m	§S		25	25	10	100m	10u	6.0Ø	.10mØ	11	17u	800	2.7	40p	AØ	ZA11		
72#	2S3020	300m	.80M§	1.7m	§S		40	40	20	100m	10u	6.0Ø	.10mØ	11	17u	800	2.7	40p	AØ	ZA11		
73#	2S3021	300m	.80M§	1.7m	§S		15	15	10	100m	10u	6.0Ø	.10mØ	11	17u	800	2.7	40p	AØ	ZA11		
74#	OC206	300m	.85M§Δ	2.5m	§J		32	32	12	250m	.50u	1.0Ø	150mØ	16 †Δ						R8		
75	2N3842Ø	300m	1.0M§Δ	1.7m	§S		120	120	120	100m	20nØ	.50Ø	1.0mØ	10 †Δ				9pØ		TO18	A	
76#	2S321	300m	1.0M	2.4m	▼J		80	80 §	30	50m	10u	6.0	1.0m	15				40p	A	R51		
77#	2S322	300m	1.0M	2.4m	▼J		40	40	20	50m	10u	6.0	1.0m	20				40p	A	R51		
78#	2S303	300m	1.2M	1.7m	§J		25	25	20	100m	10u	6.0	1.0m	35				40p	A	TO5		
79#	2S3030	300m	1.2M§	1.7m	§S		25	25	10	100m	10u	6.0Ø	.10mØ	19	29u	1.5k	4.3	40p	AØ	ZA11		
80	2N3841Ø	300m	1.5M§Δ	1.7m	§S		100	100	80	100m	2nØ	.50Ø	1.0mØ	20 †Δ				9pØ		TO18	A	
81#	2S323	300m	2.0M	2.4m	▼J		25	25	20	50m	10u	6.0	1.0m	35				40p	A	R51		
82#	2S324	300m	3.0M	2.4m	▼J		15	15	15	50m	10u	6.0	1.0m	75				40p	A	R51		
83#	2S304	300m	3.5M	1.7m	§J		15	15	15	100m	10u	6.0	1.0m	75				40p	A	TO5		
84#	2S3040	300m	3.5M§	1.7m	§S		15	15	10	100m	10u	6.0Ø	.10mØ	39	78u	3.2k	8.4	40p	AØ	ZA11		
85	3N90Ø	300m	6.0M§Δ	1.7m	§S		50		30	20m	.01uØ							10pØ	Δ	TO72	GDØ	
86	3N91Ø	300m	6.0M§Δ	1.7m	§S		50		30	20m	.01uØ							10pØ	Δ	TO72	GDØ	
87	3N92Ø	300m	6.0M§Δ	1.7m	§S		50		30	20m	.01uØ							10pØ	Δ	TO72	GDØ	
88	3N93Ø	300m	6.0M§Δ	1.7m	§S		50		50	20m	.01uØ							10pØ	Δ	TO72	GDØ	
89	JAN3N93Ø	300m	6.0M§Δ	1.7m	§S		50	50	50	20m	10nØ							10pØ	Δ	TO72	GD	
90	3N94Ø	300m	6.0M§Δ	1.7m	§S		50		50	20m	.01uØ							10pØ	Δ	TO72	GDØ	
91	3N95Ø	300m	6.0M§Δ	1.7m	§S		50		50	20m	.01uØ							10pØ	Δ	TO72	GDØ	
92	3N129Ø	300m	8.0M§Δ	1.6m	§S		20		10	20m	1.0n							10pØ	Δ	TO72	GCØ	
93	3N130Ø	300m	8.0M§Δ	1.6m	§S		30		20	20m	1.0n							10pØ	Δ	TO72	GCØ	
94	3N131Ø	300m	8.0M§Δ	1.6m	§S		40		30	20m	1.0n							10pØ	Δ	TO72	GCØ	
95	3N132Ø	300m	8.0M§Δ	1.6m	§S		50		40	20m	1.0n							10pØ	Δ	TO72	GCØ	
96	3N133Ø	300m	8.0M§Δ	1.6m	§S		60		50	20m	1.0n							10pØ	Δ	TO72	GCØ	
97	3N134Ø	300m	8.0M§Δ	1.7m	§S		20		15	20m	.01u							12pØ	Δ	TO72	GCØ	
98	3N135Ø	300m	8.0M§Δ	1.7m	§S		40		30	20m	.01u							12pØ	Δ	TO72	GCØ	
99	3N136Ø	300m	8.0M§Δ	1.7m	§S		60		50	20m	.01u							12pØ	Δ	TO72	GCØ	
100	2N864A†	300m	12M§Δ	1.6m	§S		6.0	6.0	6.0	100m	1.0n	6.0Ø	1.0m	25 Δ		700		9.0pØ		TO18		
101	JAN3N108Ø	300m	12M§Δ	1.6m	§S		50			20m	250pØ							10pØ		TO72	GC	
102	3N114Ø	300m	12M§Δ	1.7m	§S		30		12	20m	.01uØ							10pØ		TO72	GDØ	
103	3N115Ø	300m	12M§Δ	1.7m	§S		30		12	20m	.01uØ							10pØ		TO72	GDØ	
104	3N116Ø	300m	12M§Δ	1.7m	§S		30		12	20m	.01uØ							10pØ		TO72	GDØ	
105	3N117Ø	300m	12M§Δ	1.6m	§S		50		20	20m	10nØ							10pØ		TO72	GDØ	
106	3N118Ø	300m	12M§Δ	1.7m	§S		50		20	20m	.01uØ							10pØ		TO72	GDØ	
107	3N119Ø	300m	12M§Δ	1.7m	§S		50		20	20m	.01uØ							10pØ		TO72	GDØ	
108	2N865A†	300m	24M§Δ	1.6m	§S		10	6.0	10	100m	1.0n	6.0Ø	1.0m	100 Δ		700		9.0pØ		TO18		
109#	2H1254†	300m	25MΔ	2.0m	§A		25		5.0		200nØ	10	2.0m	25	b	30 Ø		10pØ	ME	TO18		
110#	2H1256†	300m	25MΔ	2.0m	§A		35		5.0		200nØ	10	2.0m	25	b	30 Ø		10pØ	ME	TO18		

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T A M X	E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O D E
1#	2H1258†	300m	25MΔ	2.0m	§A		25		5.0		200nØ	10	2.0m	25	b	30 ☑		10pØ	ME	TO18		
2#	ZT152	300m	30M§Δ	2.4m	§A		20	20	15	500m	.10u	6.0Ø	100m	35 †				5.0p	PE	TO18		
3#	2H1255†	300m	40MΔ	2.0m	§A		25		5.0		200nØ	10	2.0m	55	b	30 ☑		10pØ	ME	TO18		
4#	2H1257†	300m	40MΔ	2.0m	§A		35		5.0		200nØ	10	2.0m	55	b	30 ☑		10pØ	ME	TO18		
5#	2H1259†	300m	40MΔ	2.0m	§A		25		5.0		200nØ	10	2.0m	55	b	30 ☑		10pØ	ME	TO18		
6#	HT100†	300m	40MΔ	2.0m	§A		20	20	5.0	50m	200nØ	10	2.0m	11 †	b	30 ☑		10pØ	ME	TO18		
7#	HT101†	300m	40MΔ	2.0m	§A		20	20	5.0	50m	200nØ	1.0Ø	10mØ	35 †Δ	b	30 ☑		10pØ	ME	TO18		
8	2N2862	300m	45M§Δ	1.7m	§S		25	20	5.0	100m	.01uØ	5.0Ø	1.0mØ	25 Δ	50u☑	5k☑		6pØ	Ø	TO18		AØ
9	2N2861	300m	60M§Δ	1.7m	§S		25	20	5.0	100m	.01u	5.0Ø	1.0mØ	50 Δ	50u☑	5k☑		6pØ	Ø	TO18		AØ
10	2N3347*	300m	60M§Δ	2.0m	§S		60	45	6.0		10nØ	5.0Ø	1.0mØ	60 Δ	100u	1.5k		6.0pØ	Ø	L17k		Ø
11	2N3348*	300m	60M§Δ	2.0m	§S		60	45	6.0		10nØ	5.0Ø	1.0mØ	60 Δ	100u	1.5k		6.0pØ	Ø			Ø
12	2N3349*	300m	60M§Δ	2.0m	§S		60	45	6.0		10nØ	5.0Ø	1.0mØ	60 Δ	100u	1.5k		6.0pØ	Ø			Ø
13	2N3350*	300m	60M§Δ	2.0m	§S		60	45	6.0		10nØ	5.0Ø	1.0mØ	150 Δ	100u	3.7k		6.0pØ	Ø			Ø
14	2N3351*	300m	60M§Δ	2.0m	§S		60	45	6.0		10nØ	5.0Ø	1.0mØ	150 Δ	100u	3.7k		6.0pØ	Ø			Ø
15	2N3352*	300m	60M§Δ	2.0m	§S		60	45	6.0		10nØ	5.0Ø	1.0mØ	150 Δ	100u	3.7k		6.0pØ	Ø			Ø
16#	BC137	300m	60M§Δ	3.0m	♦J		40	40	4.0	600m	.05uØ	10Ø	10mØ	85	130u	400	1.4	10pØ	DPE	R97		
17	EN1132	300m	60M§Δ	3.0m	♦J		50	35	5.0		1.0uØ	10Ø	150mØ	30 †#Δ	1.0u☑b	35 ☑	8.0 ☑	45pØ	DPE	TO106		A
18#	2SA561	300m	70M§	3.0m	♦J		50	50	5.0	150m	100nØ	1.0Ø	20mØ	100 †				20pØ	PE	R67a		B
19#	2SA562	300m	70.M§	3.0m	♦J		30	30	5.0	400m	.10uØ	1.0Ø	100mØ	40 †Δ*				13p	PE†	RO67a		B
20	2N3638†	300m	100M§Δ	3.0m	♦J		2.5	25	4.0	500m	35n§	10Ø	10mØ	25 Δ	1.2m☑	2.0k☑	26 ☑	20pØ		R110a		A
21	2N5120*	300m	100M§Δ	1.7m	§S		45	45	7.0	10m	100pØ	5.0Ø	10uØ	100 †Δ				800f$☑	Ø	L17c		
22	2N5121*	300m	100M§Δ	1.7m	§S		45	45	7.0	10m	100pØ	5.0Ø	10uØ	100 †Δ				800f$☑	Ø	L17c		
23	2N5122*	300m	100M§Δ	1.7m	§S		45	45	7.0	10m	100pØ	5.0Ø	10uØ	50 †Δ				800f$☑	Ø	L17c		
24	2N5142†	300m	100M§Δ	29u	♦J		20	20	4.0	500m	.05u§	10Ø	300mØ	15 †#Δ				10p$		TO105		A
25#	2SA604	300m	100M§Δ	2.4m	§J		120	100	5.0	30m	1.0u#	3.0Ø	1.0mØ	40 †Δ				5pØ	PE	TO18		AØ
26#	2SA605	300m	100M§Δ	2.4m	§J		180	160	6.0	50m	50n	3.0Ø	1.0mØ	50 †Δ				5.0pØ	PE	TO18		AØ
27	CS3702	300m	100M§Δ	3.0m	§S		40	25	5.0	200m	100nØ	5.0Ø	50mØ	300 #☑				12pØ		TO106		
28	CS3703	300m	100M§Δ	3.0m	§S		50	30	5.0	200m	.10uØ	5.0Ø	50mØ	150 #☑				12pØ		TO106		
29	GI3702	300m	100M§	3.0m	♦J		40	25	5.0		.10uØ	5.0Ø	50mØ	60 †Δ#				12pØ		R97d		
30	GI3703	300m	100M§	3.0m	♦J		50	30	5.0		.10uØ	5.0Ø	50mØ	30 †Δ#				12pØ		R97d		
31#	NKT20329	300m	100M§	2.0m	§J		30	30	4.0	100m	.01uØ	10Ø	.01mØ	60 †				4.0p		TO18		AØ
32	ST8704	300m	100M§	1.6m	§J		45	30	6.0		10nØ	5.0Ø	500uØ	60 †Δ				10p	PE	TO18		Ø
33	ST8705	300m	100M§	1.6m	§J		45	30	6.0		10nØ	5.0Ø	500uØ	150 †Δ				10p	PE	TO18		Ø
34#	V435†	300m	100M§Δ	3.0m	♦J		20	20	5.0		.10uØ	10Ø	10mØ	40 †Δ				12pØ	PE	R97		
35▼	MPSA70	300m	125M§Δ	2.7m	†J			40	4.0	100m	100n	10Ø	5.0mØ	40 †Δ*				4.0pØ	AN	TO92		A
36#	BC179A	300m	130M§	2.0m	§J		25	20	5.0	100m	100nØ	5.0Ø	2.0mØ	125 Δ				4.5p	PEØ	TO18		AØ
37	2N726	300m	140M§Δ	2.0m	§J		25	20	5.0	50m	1.0u	1.0Ø	10mØ	30 †#				5pØ	MEΔ	TO18		AØ
38	2N727	300m	140M§Δ	2.0m	§J		25	20	5.0	50m	1.0u	1.0Ø	10mØ	60 †#				5pØ	MEΔ	TO18		AØ
39#	BFV82	300m	140M§Δ	500u	§J		25	20	5.0	50m	1.0u	10Ø	10mØ	15 Δ				5pØ	DΔ	u26a		B
40#	BFV82A	300m	140M§Δ	500u	§J		25	20	5.0	50m	1.0u	10Ø	10mØ	30 Δ				5pØ	DΔ	u26a		B
41#	BFV82B†	300m	140M§Δ	588u	§J		25	20	5.0	100m	10u§	.50Ø	10mØ	20 †Δ				5pØ	PE	u26a		B
42#	BFV82C†	300m	140M§Δ	588u	§J		25	20	5.0	100m	10u§	.50Ø	10mØ	40 †Δ				5pØ	PE	u26a		B
43♦	2N3638A†	300m	150M§Δ	3.0m	♦J		25	25	4.0	500m	35n§	10Ø	10mØ	100 Δ	1.2mØ	2.0kØ	15 ☑	10pØ		R110a		A
44#	2SA550	300m	150M§	2.0m	§J		25	25	5.0	100m	1.0uØ	5.0	2.0m	250 †				5.0p	PE	TO18		
45#	2SA550A	300m	150M§	2.0m	§J		45	45	5.0	100m	1.0uØ	5.0	2.0m	250 †				5.0p	PE	TO18		
46#	2SA603	300m	150M§Δ	2.4m	§J		60	40	8.0	200m	.50uØ	1.0Ø	10mØ	80 †Δ				7pØ	PE	TO18		AØ
47	A177	300m	150M§	2.0m	§J		50	45	5.0	100m	.10u	5.0Ø	2.0mØ	75	36u	2.6k	.22	4.0p	PL	TO18		AØ
48	A178A	300m	150M§	2.0m	§J		30	25	5.0	100m	100nØ	5.0Ø	2.0mØ	125 Δ	42u	2.8k	260m	4.0p$	PL	TO18		AØ
49	A178B	300m	150M§	2.0m	§J		30	25	5.0	100m	100nØ	5.0Ø	2.0mØ	240 Δ	60u	3.5k	250m	4.0p$	PL	TO18		AØ
50	A179A	300m	150M§	2.0m	§J		25	20	5.0	100m	100nØ	5.0Ø	2.0mØ	125 Δ	42u	2.8k	260m	4.0p$	PLØ	TO18		AØ
51	A179B	300m	150M§	2.0m	§J		25	20	5.0	100m	100nØ	5.0Ø	2.0mØ	240 Δ	60u	3.5k	250m	4.0p$	PLØ	TO18		AØ
52▼#	BC221	300m	150M§	3.0m	§J		30	30	5.0	500m	500nØ	5.0Ø	10mØ	50 †Δ	220m	390	1.1	8.0p	DPE	TO105		
53#	BCW37	300m	150M	2.7m	§		60	45	5.0	600m	10n	5.0Ø	100mØ	100 Δ	5.0u	40k	10	6.0p	PEØ	TO92		
54	EN2905†	300m	150MΔ	3.0m	♦J		60	40	5.0	600m	.05uØ	10Ø	150mØ	100 †#Δ				8pØ	DPE	TO105		A
55	EN3502†	300m	150M§Δ	3.0m	♦J		45	45	5.0	600m	.01u§Ø	10Ø	10mØ	135 Δ	1.2m	2.3k	15	8pØ	DPEØ	TO105		A
56#	ZT180†	300m	150MΔ§	2.4m	§J		25	25	4.0	500m	500n	6.0Ø	1.0mØ	55				15pØ	PLØ	TO18		AØ
57#	ZT181†	300m	150MΔ§	2.4m	§J		45	35	4.0	500m	500n	6.0Ø	1.0mØ	55				15pØ	PLØ	TO18		AØ
58#	ZT183†	300m	150MΔ§	2.4m	§J		45	45	4.0	500m	50n	6.0Ø	1.0mØ	55				15pØ	PLØ	TO18		AØ
59#	ZT184†	300m	150MΔ§	2.4m	§J		45	45	4.0	500m	50n	6.0Ø	1.0mØ	90				15pØ	PLØ	TO18		AØ
60#	ZT187†	300m	150MΔ§	2.4m	§J		25	25	4.0	500m	500n	6.0Ø	1.0mØ	90				15pØ	PLØ	TO18		AØ
61#	ZT189†	300m	150MΔ§	2.4m	§J		70	70	4.0	500m	500n	6.0Ø	1.0mØ	90				15pØ	PLØ	TO18		AØ
62♦#	ZT280†	300m	150M§Δ	2.4m	§J		25	25	4.0	500m#	500n	6.0Ø	1.0mØ	55				15pØ	PLØ	R81k		AØ
63♦#	ZT281†	300m	150M§Δ	2.4m	§J		45	35	4.0	500m#	500n	6.0Ø	1.0mØ	55				15pØ	PLØ	R81k		AØ
64♦#	ZT282†	300m	150M§Δ	2.4m	§J		45	35	4.0	500m#	500n	6.0Ø	1.0mØ	90				15pØ	PLØ	R81k		AØ
65♦#	ZT283†	300m	150M§Δ	2.4m	§J		45	45	4.0	500m#	50n	6.0Ø	1.0mØ	55				15pØ	PLØ	R81k		AØ
66♦#	ZT284†	300m	150M§Δ	2.4m	§J		45	45	4.0	500m#	50n	6.0Ø	1.0mØ	90				15pØ	PLØ	R81k		AØ
67♦#	ZT287†	300m	150M§Δ	2.4m	§J		25	25	4.0	500m#	500n	6.0Ø	1.0mØ	90				15pØ	PLØ	R81k		AØ
68♦#	ZTX500	300m	150M§Δ	3.0m	♦A		25	25	5.0	500m#	200n	6.0Ø	10mØ	50 †Δ				6.0pØ	PLØ	X59		F
69♦#	ZTX501	300m	150M§Δ	3.0m	♦A		35	35	5.0	500m#	200n	6.0Ø	10mØ	50 †Δ				6.0pØ	PLØ	X59		F
70♦#	ZTX502	300m	150M§Δ	3.0m	♦A		35	35	5.0	500m#	200n	6.0Ø	10mØ	100 †Δ				6.0pØ	PLØ	X59		F
71♦#	ZTX503	300m	150M§Δ	3.0m	♦A		45	45	5.0	500m#	200n	6.0Ø	10mØ	50 †Δ				6.0pØ	PLØ	X59		F
72♦#	ZTX504	300m	150M§Δ	3.0m	♦A		70	70	5.0	500m#	200n	6.0Ø	10mØ	50 †Δ				6.0pØ	PLØ	X59		F
73	2N4888	300m	160M§☑	3.0m	♦J		150	150	6.0	100m	.05uØ	10Ø	1.0mØ	500 ☑	40u☑	20k☑		4pØ		R124 b		A
74	2N4889	300m	160M§☑	3.0m	♦J		150	150	6.0	100m	.01uØ	10Ø	1.0mØ	400 ☑	25u☑	12k☑	5 ☑	4pØ	Ø	R124 b		A
75#	V205†	300m	160M§	2.0m	§A		15	10	3.0		.02u§Ø	1.0Ø	20mØ	55 †#				8.0p	DPEØ	TO18		A
76#	V435A	300m	170M§	3.0m	♦J		35	35	5.0		.10uØ	10Ø	10mØ	40 †Δ#				6.0p	PE	R97		A
77#	BC250A	300m	180M§	3.0m	♦J		20	20	5.0	100m	.10uØ	1.0Ø	1.0mØ	35 †Δ				4.0p	PE†	X64		A
78#	BC250B	300m	180M§	3.0m	♦J		20	20	5.0	100m	100nØ	1.0Ø	1.0mØ	80 †Δ				4.0p	PE†	X64		A
79#	BC250C	300m	180M§	3.0m	♦J		20	20	5.0	100m	100nØ	1.0Ø	1.0mØ	200 †Δ				4.0p	PE†	X64		A
80#	BC260A	300m	180M§	2.0m	§J		20	20	5.0	100m	.10uØ	1.0Ø	1.0mØ	35 †Δ				4.0p	PE	TO18		AØ
81#	BC260B	300m	180M§	2.0m	§J		20	20	5.0	100m	.10uØ	1.0Ø	1.0mØ	80 †Δ				4.0p	PE	TO18		AØ
82#	BC260C	300m	180M§	2.0m	§J		20	20	5.0	100m	.10uØ	1.0Ø	1.0mØ	200 †Δ				4.0p	PE	TO18		AØ
83	2N2411†	300m	200M§	1.7m	§S		25	20	5.0	100m	.01uØ	.50Ø	10mØ	35 †				3.7p	PE	TO18		AØ
84	2N2412†	300m	200M§	1.7m	§S		25	20	5.0	100m	.01uØ	.50Ø	10mØ	55 †				3.7p	PE	TO18		AØ
85	2N3644†	300m	200M§Δ	3.0m	♦J		45	45	5.0	500m	35n§	10Ø	1.0mØ	80 †Δ				8.0pØ		R110a		A
86	2N3645†	300m	200M§Δ	3.0m	♦J		60	60	5.0	500m	35n§	10Ø	1.0mØ	80 †Δ				8.0pØ		R110a		A
87	2N4142†	300m	200MΔ§	3.0m	♦J		60	40	5.0	200m	50n#	10Ø	150mØ	120 †☑				8.0pØ		R110		A
88	2N4143†	300m	200M§Δ	3.0m	♦J		60	40	5.0	200m	50n#	10Ø	150mØ	300 †☑				8.0pØ		R110		A
89	2N4228	300m	200M§Δ	3.0m	♦J		60	40	5.0	200m	50n#	10Ø	150mØ	150 †☑				8.0pØ		R110		A
90#	2SA467	300m	200M§	3.0m	♦J		40	30	5.0	400m	.50uØ	1.0Ø	100mØ	100 †				10p	PE	RO67a		B
91♦#	AT410	300m	200MΔ§	2.4m	§J		30	30	5.0	500m	200nØ	10Ø	150mØ	30 †Δ				8.0pØ	PE	MM12a	D	
92▼#	AT412	300m	200MΔ§	2.4m	§J		45	45	5.0	500m	200n	10Ø	150mØ	30 Δ				8.0pØ	PE	MM12a	D	
93▼#	AT413	300m	200MΔ§	2.4m			45	45	5.0	500m	200n	10Ø	150mØ	100 Δ				8.0pØ	PE	MM12a	D	
94▼#	AT414	300m	200MΔ§	2.4m			30	30	5.0	500m	200n	10Ø	150mØ	100 Δ				8.0pØ	PE	MM12a	D	
95▼#	AT415	300m	200MΔ§	2.4m	§J		30	30	5.0	500m	200n	10Ø	150mØ	30 Δ				8.0pØ	PE	MM12a	D	
96▼#	AT416	300m	200MΔ§	2.4m	§J		45	45	5.0	500m	200n	10Ø	150mØ	30 Δ				8.0pØ	PE	MM12a	D	
97▼#	AT417	300m	200MΔ§	2.4m	§J		45	45	5.0	500m	200n	1.0Ø	50mØ	100 Δ				8.0pØ	PE	MM12a	D	
98#	BC116	300m	200M§	3.0m	♦J		45	40	5.0		50nØ	10Ø	100uØ	20 †Δ				5.0p	DPE	R97		
99#	BC126	300m	200M§Δ	3.0m	♦J		35	30	5.0	600m	.05uØ	10Ø	1.0mØ	20 †Δ				5.0p	DPE	R97		
100#	BC177	300m$	200M§	2.0m	§J		45	45	5.0	100m	.05u	5.0Ø	2.0mØ	240 †Δ					PE	TO18		A
101#	BC177A	300m	200M§	2.0m	§J		50	45	5.0	100m	.05u	5.0Ø	2.0mØ	180				4.0p	E	TO18		AØ
102#	BC177B	300m	200M§	2.0m	§J		50	45	5.0	100m	.05u	5.0Ø	2.0mØ	290				4.0p	E	TO18		AØ
103#	BC177V	300m	200M§	2.0m	§J		50	45	5.0	100m	.05u	5.0Ø	2.0mØ	75				4.0p	E	TO18		AØ
104#	BC177VI	300m	200M§	2.0m	§J		50	45	5.0	100m	.05u	5.0Ø	2.0mØ	110				4.0p	E	TO18		AØ
105#	BC178	300m$	200M§	2.0m	§J		20	20	5.0	100m	.10u	5.0Ø	2.0mØ	240 †Δ					PE	TO18		A
106#	BC178A	300m	200M§	2.0m	§J		30	25	5.0	100m	.10u	5.0Ø	2.0mØ	180				4.0p	E	TO18		AØ
107#	BC178B	300m	200M§	2.0m	§J		30	25	5.0	100m	.10u	5.0Ø	2.0mØ	290				4.0p	E	TO18		AØ
108#	BC178V	300m	200M§	2.0m	§J		30	25	5.0	100m	.10u	5.0Ø	2.0mØ	75				4.0p	E	TO18		AØ
109#	BC178VI	300m	200M§	2.0m	§J		30	25	5.0	100m	.10u	5.0Ø	2.0mØ	110				4.0p	E	TO18		AØ
110#	BC179	300m$	200M§	2.0m	§J		20	20	5.0	100m	.05u	5.0Ø	2.0mØ	240 †Δ					PEØ	TO18		A

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	BC179B	300m	200M§	2.0m	§J	25	20	5.0	100m	.05u	5.0Ø	2.0mØ	290				4.0p	EØ	TO18	AØ
2#	BC204A	300m	200M§	3.0m	♦J	45	45	5.0	100m	50n	5.0Ø	2.0mØ	125 Δ				4.0p	PE	R110	A
3#	BC204B	300m	200M§	3.0m	♦J	45	45	5.0	100m	50n	5.0Ø	2.0mØ	240 Δ				4.0p	PE	R110	A
4#	BC204V	300m	200M§	3.0m	♦J	45	45	5.0	100m	50n	5.0Ø	2.0mØ	50 Δ				4.0p	PE	R110	A
5#	BC204VI	300m	200M§	3.0m	♦J	45	45	5.0	100m	50n	5.0Ø	2.0mØ	75 Δ				4.0p	PE	R110	A
6#	BC205A	300m	200M§	3.0m	♦J	20	20	5.0	100m	.10u	5.0Ø	2.0mØ	125 Δ				4.0p	PE	R110	A
7#	BC205B	300m	200M§	3.0m	♦J	20	20	5.0	100m	.10u	5.0Ø	2.0mØ	240 Δ				4.0p	PE	R110	A
8#	BC205V	300m	200M§	3.0m	♦J	20	20	5.0	100m	.10u	5.0Ø	2.0mØ	50 Δ				4.0p	PE	R110	A
9#	BC205VI	300m	200M§	3.0m	♦J	20	20	5.0	100m	.10u	5.0Ø	2.0mØ	75 Δ				4.0p	PE	R110	A
10#	BC206B	300m	200M§	3.0m	♦J	20	20	5.0	100m	50n	5.0Ø	2.0mØ	240 Δ				4.0p	PEØ	R110	A
11#	BC212K†	300m	200M§Δ	3.0m	♦J	60	50	5.0	200m	15nØ	5.0Ø	2.0mØ	50 Δ				10pØ	PEØ	X64a	A
12#	BC212KA†	300m	200M§Δ	3.0m	♦J	60	50	5.0	200m	15nØ	5.0Ø	2.0mØ	100 Δ				10pØ	PEØ	X64a	A
13#	BC212KB†	300m	200M§Δ	3.0m	♦J	60	50	5.0	200m	15nØ	5.0Ø	2.0mØ	200 Δ				10pØ	PEØ	X64a	A
14#	BC212L†	300m	200M§Δ	3.0m	♦J	60	50	5.0	200m	15nØ	5.0Ø	2.0mØ	50 Δ				10pØ	PEØ	X20	B
15#	BC212LA†	300m	200M§Δ	3.0m	♦J	60	50	5.0	200m	15nØ	5.0Ø	2.0mØ	100 Δ				10pØ	PEØ	X20	B
16#	BC212LB†	300m	200M§Δ	3.0m	♦J	60	50	5.0	200m	15nØ	5.0Ø	2.0mØ	200 Δ				10pØ	PEØ	X20	B
17#	BC213K†	300m	200M§Δ	3.0m	♦J	45	30	5.0	200m	15nØ	5.0Ø	2.0mØ	70 Δ				10pØ	PEØ	X64a	A
18#	BC213KA†	300m	200M§Δ	3.0m	♦J	45	30	5.0	200m	15nØ	5.0Ø	2.0mØ	100 Δ				10pØ	PEØ	X64a	A
19#	BC213KB†	300m	200M§Δ	3.0m	♦J	45	30	5.0	200m	15nØ	5.0Ø	2.0mØ	200 Δ				10pØ	PEØ	X64a	A
20#	BC213KC†	300m	200M§Δ	3.0m	♦J	45	30	5.0	200m	15nØ	5.0Ø	2.0mØ	350 Δ				10pØ	PEØ	X64a	A
21#	BC213L†	300m	200M§Δ	3.0m	♦J	45	30	5.0	200m	15nØ	5.0Ø	2.0mØ	70 Δ				10pØ	PEØ	X20	B
22#	BC213LA†	300m	200M§Δ	3.0m	♦J	45	30	5.0	200m	15nØ	5.0Ø	2.0mØ	100 Δ				10pØ	PEØ	X20	B
23#	BC213LB†	300m	200M§Δ	3.0m	♦J	45	30	5.0	200m	15nØ	5.0Ø	2.0mØ	200 Δ				10pØ	PEØ	X20	B
24#	BC213LC†	300m	200M§Δ	3.0m	♦J	45	30	5.0	200m	15nØ	5.0Ø	2.0mØ	350 Δ				10pØ	PEØ	X20	B
25#	BC214K†	300m	200M§Δ	3.0m	♦J	45	30	5.0	200m	15nØ	5.0Ø	2.0mØ	125 Δ				10pØ	PEØ	X64a	A
26#	BC214KB†	300m	200M§Δ	3.0m	♦J	45	30	5.0	200m	15nØ	5.0Ø	2.0mØ	200 Δ				10pØ	PEØ	X64a	A
27#	BC214KC†	300m	200M§Δ	3.0m	♦J	45	30	5.0	200m	15nØ	5.0Ø	2.0mØ	350 Δ				10pØ	PEØ	X64a	A
28#	BC214L†	300m	200M§Δ	3.0m	♦J	45	30	5.0	200m	15nØ	5.0Ø	2.0mØ	125 Δ				10pØ	PEØ	X20	B
29#	BC214LB†	300m	200M§Δ	3.0m	♦J	45	30	5.0	200m	15nØ	5.0Ø	2.0mØ	200 Δ				10pØ	PEØ	X20	B
30#	BC214LC†	300m	200M§Δ	3.0m	♦J	45	30	5.0	200m	15nØ	5.0Ø	2.0mØ	350 Δ				10pØ	PEØ	X20	B
31#	BC251A	300m	200M§	3.0m	♦J	45	45	5.0	100m	.05u	5.0Ø	2.0mØ	125 Δ	18u	2.7k	1.5	4.0p	PE†Ø	X64	A
32#	BC251B	300m	200M§	3.0m	♦J	45	45	5.0	100m	.05u	5.0Ø	2.0mØ	240 Δ	30u	4.5k	2.0	4.0p	PE†Ø	X64	A
33#	BC251C	300m	200M§	3.0m	♦J	45	45	5.0	100m	.05u	5.0Ø	2.0mØ	450 Δ	60u	8.7k	3.0	4.0p	PE†Ø	X64	A
34#	BC252A	300m	200M§	3.0m	♦J	20	20	5.0	100m	.05u	5.0Ø	2.0mØ	125 Δ	18u	2.7k	1.5	4.0p	PE†Ø	X64	A
35#	BC252B	300m	200M§	3.0m	♦J	20	20	5.0	100m	.05u	5.0Ø	2.0mØ	240 Δ	30u	4.5k	2.0	4.0p	PE†Ø	X64	A
36#	BC252C	300m	200M§	3.0m	♦J	20	20	5.0	100m	.05u	5.0Ø	2.0mØ	450 Δ	60u	8.7k	3.0	4.0p	PE†Ø	X64	A
37#	BC253A	300m	200M§	3.0m	♦J	20	20	5.0	100m	.05u	5.0Ø	2.0mØ	125 Δ	18u	2.7k	1.5	4.0p	PE†Ø	X64	A
38#	BC253B	300m	200M§	3.0m	♦J	20	20	5.0	100m	.05u	5.0Ø	2.0mØ	240 Δ	30u	4.5k	2.0	4.0p	PE†Ø	X64	A
39#	BC253C	300m	200M§	3.0m	♦J	20	20	5.0	100m	.05u	5.0Ø	2.0mØ	450 Δ	60u	8.7k	3.0	4.0p	PE†Ø	X64	A
40#	BC256A	300m	200M§	3.0m	♦J	64	64	5.0	100m	.05u	5.0Ø	2.0mØ	125 Δ	18u	2.7k	1.5	4.0p	PE†Ø	X64	A
41#	BC256B	300m	200M§	3.0m	♦J	64	64	5.0	100m	.05u	5.0Ø	2.0mØ	240 Δ	30u	4.5k	2.0	4.0p	PE†Ø	X64	A
42#	BC261A	300m	200M§	2.0m	§J	45	45	5.0	100m	.05u	5.0Ø	2.0mØ	125 Δ	18u	2.7k	1.5	4.0p	PEØ	TO18	AØ
43#	BC261B	300m	200M§	2.0m	§J	45	45	5.0	100m	.05u	5.0Ø	2.0mØ	240 Δ	30u	4.5k	2.0	4.0p	PEØ	TO18	AØ
44#	BC261C	300m	200M§	2.0m	§J	45	45	5.0	100m	.05u	5.0Ø	2.0mØ	450 Δ	60u	8.7k	3.0	4.0p	PEØ	TO18	AØ
45#	BC262A	300m	200M§	2.0m	§J	20	20	5.0	100m	.05u	5.0Ø	2.0mØ	125 Δ	18u	2.7k	1.5	4.0p	PEØ	TO18	AØ
46#	BC262B	300m	200M§	2.0m	§J	20	20	5.0	100m	.05u	5.0Ø	2.0mØ	240 Δ	30u	4.5k	2.0	4.0p	PEØ	TO18	AØ
47#	BC262C	300m	200M§	2.0m	§J	20	20	5.0	100m	.05u	5.0Ø	2.0mØ	450 Δ	60u	8.7k	3.0	4.0p	PEØ	TO18	AØ
48#	BC263A	300m	200M§	2.0m	§J	20	20	5.0	100m	.05u	5.0Ø	2.0mØ	125 Δ	18u	2.7k	1.5	4.0p	PEØ	TO18	AØ
49#	BC263B	300m	200M§	2.0m	§J	20	20	5.0	100m	.05u	5.0Ø	2.0mØ	240 Δ	30u	4.5k	2.0	4.0p	PEØ	TO18	AØ
50#	BC263C	300m	200M§	2.0m	§J	20	20	5.0	100m	.05u	5.0Ø	2.0mØ	450 Δ	60u	8.7k	3.0	4.0p	PEØ	TO18	AØ
51#	BC266A	300m	200M§	2.0m	§J	64	64	5.0	100m	.05u	5.0Ø	2.0mØ	125 Δ	18u	2.7k	1.5	4.0p	PEØ	TO18	AØ
52#	BC266B	300m	200M§	2.0m	§J	64	64	5.0	100m	.05u	5.0Ø	2.0mØ	240 Δ	30u	4.5k	2.0	4.0p	PEØ	TO18	AØ
53#	BCY78	300m$	200M§	2.0m	§J		32	5.0	200m		5.0Ø	2.0mØ	125 Δ*				4p$	PE	TO18	AØ
54#	BCY79	300m$	200M§	2.0m	§J		45	5.0	200m		5.0Ø	2.0mØ	125 Δ*				4p$	PE	TO18	AØ
55#	BFS32	300m	200M	2.4m	$	45	45	5.0	200m	20n	10Ø	50mØ	30 †Δ				10p	PEØ	u34	
56#	BFS33	300m	200M	2.4m	$	45	45	5.0	200m	20n	10Ø	2.0mØ	60 †Δ				10p	PEØ	u34	
57#	BFS34	300m	200M	2.4m	$	45	30	5.0	200m	20n	10Ø	2.0mØ	100 †Δ				10p	PEØ	u34	
58	GI3644†	300m	200M§	3.0m	♦J	45	45	5.0		.03u§Ø	10Ø	150mØ	100 †Δ				8pØ		TO18	A
59#	BFX12	300m	210M§	2.0m	§J	20	15		100m	.01uØ	.35Ø	10mØ	20 †Δ					PEΔ	TO18	AØ
60#	BSY40†	300m	210M§	2.0m	§J	25	20	5.0	100m	.01u	.50Ø	10mØ	40 †					PE	TO18	AØ
61#	BFX13	300m	230M§	2.0m	§J	20	15		100m	.01uØ	.35Ø	10mØ	50 †					PEΔ	TO18	AØ
62#	BSY41†	300m	230M§	2.0m	§J	25	20	5.0	100m	.01u	.50Ø	10mØ	60 †					PE	TO18	AØ
63	CS3906†	300m	250M§Δ	2.4m	§J	40	40	5.0	200m	50n#	10Ø	1.0mØ	100 Δ	60uØ	12kØ	10 Ø	4.5pØ	DPLØ	R97a	A
64	GI3638†	300m	250M§	3.0m	♦J	25	25	4.0		.03u§Ø	3.0Ø	50mØ	1.0 Δ	1.2mØ	2kØ	26 Ø	20pØ		R97d	
65	GI3638A†	300m	250M§	3.0m	♦J	25	25	4.0		.03u§Ø	3.0Ø	50mØ	1.5 Δ	1.2mØ	2kØ	15 Ø	10pØ		R97d	
66#	BSW21	300m	300M§	2.0m	§J	25	25	5.0	200m	.50u	4.5Ø	2.0mØ	130 †				4.0p	E	TO18	AØ
67#	BSW21A	300m	300M§	2.0m	§J	50	50	5.0	200m	.50u	4.5Ø	2.0mØ	130 †				4.0p	E	TO18	AØ
68#	BSW22	300m	300M§	2.0m	§J	25	25	5.0	200m	.50u	4.5Ø	2.0mØ	250 †				4.0p	E	TO18	AØ
69#	BSW22A	300m	300M§	2.0m	§J	50	50	5.0	200m	.50u	4.5Ø	2.0mØ	250 †				4.0p	E	TO18	AØ
70#	BSW44	300m	300M§	3.0m	♦J	25	25	5.0	200m	.50u	4.5Ø	2.0mØ	130 †				4.0p	E	R110	A
71#	BSW44A	300m	300M§	3.0m	♦J	50	50	5.0	200m	.50u	4.5Ø	2.0mØ	130 †				4.0p	E	R110	A
72#	BSW45	300m	300M§	3.0m	♦J	25	25	5.0	200m	.50u	4.5Ø	2.0mØ	250 †				4.0p	E	R110	A
73#	BSW45A	300m	300M§	3.0m	♦J	50	50	5.0	200m	.50u	4.5Ø	2.0mØ	250 †				4.0p	E	R110	A
74	2N4451†	300m	400M§Δ	1.7m	§S		12	4.0	100m	.08u§	.50Ø	30mØ	40 †#Δ				6p$Ø		TO46	A
75	2N4453†	300m	400M§Δ	1.7m	§S		18	5.0	200m	.01u§	.50Ø	30mØ	40 †#Δ				6p$Ø		TO46	A
76	JAN2N4453†	300m	400M§Δ	1.7m	§J	25	18	5.0		10n§	5.0Ø	10mØ	40 †Δ#				6.0p	Ø	TO46	AØ
77#	BFV81†	300m	400M§Δ	588u	§J	12	12	4.0	200m	10uØ	.30Ø	10mØ	30 †#Δ				6pØ	PE	u26a	B
78#	BFV81A†	300m	400M§Δ	588u	§J	12	12	4.0	200m	10uØ	.30Ø	10mØ	25 †#Δ				6pØ	PE	u26a	B
79#	BFV81B†	300m	400M§Δ	588u	§S	20	15	5.0	200m	10uØ	.50Ø	10mØ	40 †Δ				4.5p	PE	u26a	B
80#	BSV55†	300m	400M	2.4m	$						.50Ø	30mØ	40 †Δ				6.0p		u34	
81#	BSV55A†	300m	400M	2.4m	$						.50Ø	30mØ	30 †Δ				6.0p		u34	
82	2N3304†	300m	500M§Δ	1.7m	§J	6.0	6.0	4.0		.01uØ	.30Ø	10mØ	63 †				3.5pØ	PE	TO18	AØ
83	2N5040	300m	500M§Ø	3.0m	♦J	25	25	4.0	1	.05uØ	1.0Ø	150mØ	30 †#				35p$		R124 b	A
84	2N5041	300m	500M§Ø	3.0m	♦J	40	40	5.0	1	.05uØ	1.0Ø	150mØ	40 †#				35p$		R124 b	A
85#	V405A†	300m	550M§	2.0m	§J	12	12	4.0		100nØ	2.0Ø	5.0mØ	35 †				6.0pØ	DPE	TO18	Ø
86	2N4207†	300m	650M§Δ	1.7m	§J	6.0	6.0	4.5	50m	.01u§Ø	.30Ø	10mØ	50 †Δ				3pØ		TO18	AØ
87	2N4208†	300m	700M§Δ	1.7m	§J	12	12	4.5	50m	.01u§Ø	.30Ø	10mØ	30 †Δ				3pØ		TO18	AØ
88	FT1702†	300m	700M§	1.7m	§J	12	12	4.0		.01u§Ø	.30Ø	10mØ	63 †#				4pØ	DPE	TO18	AØ
89	2N4209†	300m	850M§Δ	1.7m	§J	15	15	4.5	50m	.01u§Ø	.30Ø	10mØ	50 †Δ				3pØ		TO18	AØ
90	MD5000*	300m	900M§	1.9m	§J	20	15	5.0	50m	10nØ	1.0Ø	3.0mØ	50 †				1.7pØ	ANØ	L66b	
91	MD5000A*	300m	900M§	1.9m	§J	20	15	5.0	50m	10nØ	1.0Ø	3.0mØ	50 †				1.7pØ	ANØ	L66b	
92	MD5000B*	300m	900M§	1.9m	§J	20	15	5.0	50m	10nØ	1.0Ø	3.0mØ	50 †				1.7pØ	ANØ	L66b	
93	2N4080	300m	1.0G§Δ	1.7m	§S	20	15	3.0	50m	.01uØ	1.0Ø	3.0mØ	20 †Δ				1.7p$	Ø	TO72	GØ
94#	OC207	310m	2.0M§	2.5m	§J	50	50	12	250m	.50uØ	6.0Ø	10mØ	50				100pØ	A	R8	
95	MPS404†	310m	4.0MΔ	2.8m	†J	25	24	12	150m	.10uØ	.15Ø	12mØ	30 †Δ				2pØ	AN	TO92	A
96	MPS404A†	310m	4.0MΔ	2.8m	†J	40	35	25	150m	.10uØ	.15Ø	12mØ	30 †Δ				2pØ	AN	TO92	A
97	2N5086	310m	40M§Δ	3.6m	†S	50	50	3.0	50m	.05uØ	5.0Ø	1.0mØ	150 Δ				4p$Ø	Ø	TO92	A
98	2N5087	310m	40M§Δ	3.6m	†S	50	50	3.0	50m	.05uØ	5.0Ø	1.0mØ	250 Δ				4p$Ø	Ø	TO92	A
99	2N5226	310m	50M§Δ	2.8m	†S	25	25	4.0	500m	.30uØ	10Ø	50mØ	30 Δ				20p$		TO92	A
100▼	MPSL51	310m	60M§Δ	2.8m	†J	100	100	4.0	600m	1.0uØ	10Ø	1.0mØ	20 Δ				8.0pØ	AN	TO92	A
101	2N5221	310m	100M§Δ	2.8m	†S	15	15	3.0	500m	.10uØ	10Ø	50mØ	30 Δ				15p$		TO92	A
102	2N5227	310m	100M§Δ	2.8m	†S	30	30	3.0	50m	.10uØ	10Ø	2.0mØ	50 Δ				5p$		TO92	A
103	2N5400	310m	100M§Δ	2.8m	†S	130	120	5.0	600m	100nØ	10Ø	1.0mØ	30 Δ				6.0pØ	Ø	TO92	AØ
104	2N5401	310m	100M§Δ	2.8m	†S	160	150	5.0	600m	50nØ	10Ø	1.0mØ	40 Δ				6.0pØ	Ø	TO92	AØ
105	MPS3638†	310m	100M§Δ	2.8m	#J	25	25	4.0	500m	.04uØ	10Ø	10mØ	20 †Δ	1.2mØ	1.5kØ	26 Ø	20pØ	EA	TO92	A
106	MPS3702	310m	100M§Δ	2.8m	†J	40	25	5.0	200m	.10uØ	5.0Ø	50mØ	60 †Δ				12pØ	EA	TO92	A
107	MPS3703	310m	100M§Δ	2.8m	†J	50	30	5.0	200m	.10uØ	5.0Ø	50mØ	30 †Δ				12pØ	EA	TO92	A
108	2N4402†	310m	150M§Δ	2.8m	§S	40	40	5.0	600m	.1u#Ø	1.0Ø	10mØ	30 Δ	100uØ	7.5kØ	8 Ø	8.5p$		TO92	A
109	MPS3638A†	310m	150M§Δ	2.8m	#J	25	25	4.0	500m	.04uØ	10Ø	10mØ	100 †Δ	1.2mØ	2.0kØ	15 Ø	10pØ	EA	TO92	A
110▼	MPSA65	310m	175M§	2.8m	†J	30	30	10	300m	100n	5.0Ø	10mØ	50kt Δ				2.5p	Ø	TO92	A

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1▼	MPSA66	310m	175M§	2.8m	†J	30	30	10	300m	100n	5.0Ø	10mØ	75k†Δ				2.5p	Ø	TO92	A
2	2N3905†	310m	200M§Δ	2.8m	†J	40	40	5.0	200m	.05u#	10Ø	1.0mØ	50 Δ	40u☑	8k☑	5 ☑	4.5p☑	Ø	TO92	A
3	2N4125	310m	200M§Δ	2.8m	†J	30	30	4.0	200m	.05uØ	10Ø	2.0mØ	50 Δ				4.5p$	Ø	TO92	A
4	2N4403†	310m	200M§Δ	2.8m	§S	40	40	5.0	600m	1u#Ø	1.0Ø	10mØ	60 Δ	100u☑	15k☑	8 ☑	8.5p$		TO92	A
5	MPS6516	310m	200M§	2.8m	†J	40	40	4.0	100m	.05uØ	10Ø	2.0mØ	50 †Δ				4p☑	EA	TO92	A
6	MPS6517	310m	200M§	2.8m	†J	40	40	4.0	100m	.05uØ	10Ø	2.0mØ	90 †Δ				4p☑	EA	TO92	A
7	2N3906†	310m	250M§Δ	2.8m	†J	40	40	5.0	200m	.05u#	10Ø	1.0mØ	100 Δ	60u☑	12k☑	10 ☑	4.5p☑	Ø	TO92	A
8	2N4126	310m	250M§Δ	2.8m	†J	25	25	4.0	200m	.05uØ	10Ø	2.0mØ	120 Δ				4.5p$	Ø	TO92	A
9	MPS6533	310m	260M§	2.8m	†J	40	40	4.0	600m	.05uØ	1.0Ø	100mØ	40 †Δ				6p☑	EA	TO92	A
10	MPS6534	310m	260M§	2.8m	†J	40	40	4.0	600m	.05uØ	1.0Ø	100mØ	90 †Δ				6p☑	EA	TO92	A
11	MPS6535	310m	260M§	2.8m	†J	30	30	4.0	600m	.10uØ	1.0Ø	100mØ	30 †Δ				6p☑	EA	TO92	A
12	2N5208	310m	300M§Δ	2.8m	†S	30	25	3.0	50m	.01uØ	10Ø	2.0mØ	20 †Δ				1p$☑	Ø	TO92	C
13	2N5228†	310m	300M§Δ	2.8m	†S	5.0	5.0	3.0	50m	.10u§	1.0Ø	50mØ	15 †Δ				5p$☑		TO92	A
14	MPS6518	310m	340M§	2.8m	†J	40	40	4.0	100m	.05uØ	10Ø	2.0mØ	150 †Δ				4p☑	EA	TO92	A
15	MPS6519	310m	340M§	2.8m	†J	25	25	4.0	100m	.05uØ	10Ø	2.0mØ	250 †Δ				4p☑	EA	TO92	A
16	MPS6522	310m	340M§	2.8m	†J	25	25	4.0	100m	.05uØ	10Ø	2.0mØ	200 †Δ				4p☑	EAØ	TO92	A
17	MPS6523	310m	340M§	2.8m	†J	25	25	4.0	100m	.05uØ	10Ø	2.0mØ	300 †Δ				4p☑	EAØ	TO92	A
18	MPS3640†	310m	500M§Δ	2.8m	†J	12	12	4.0	80m	10n§	.30Ø	10mØ	30 †Δ#				3.5p☑	AN	X20d	A
19▼	MPSL07†	310m	1.0G§	2.8m	†J	6.0	6.0	4.5	80m	10n§	3.0Ø	10mØ	30 †Δ				1.9p	AN	TO92	A
20▼	MPSL08†	310m	1.2G§	2.8m	†J	12	12	4.5	80m	10n§	3.0Ø	10mØ	30 †Δ				1.9p	AN	TO92	A
21	BCY10	312m	1.5M§	2.5m	§J	32		12	250m	.10uØ	6.0Ø	10m	40				90p	AØ	R8	
22	BCY11	312m	1.5M§	2.5m	§J	60		12	250m	.10uØ	6.0Ø	10m	40				90p	AØ	R8	
23	BCY12	312m	2.0M§	2.5m	§J	32		12	250m	.10uØ	6.0Ø	10m	40				90p	AØ	R8	
24	2N978	330m	65.MΔ	2.6m	§J	30	20	5.0		5.0uØ	10Ø	150mØ	38 †#				45p☑	PDΔ	TO18	AØ
25	D29A4	330m	630M§☑	3.3m	♦J	35	25	4.0	500m#	.10u	10Ø	2.0mØ	32 Δ				8p$☑	PE	TO98	B
26	D29A5	330m	630M§☑	3.3m	♦J	35	25	4.0	500m#	.10u	10Ø	2.0mØ	80 Δ				8p$☑	PE	TO98	B
27	2N5455†	340m	450M§Δ	1.9m	§J	15	15	4.5	300m	50n§	1.0Ø	100m	30 †Δ#				6p$☑		TO52	AØ
28	JAN2N1197	350m		2.0m	§J	70	70	4.0		250nØ							4.0p	D	TO5	A
29	BCY20	350m	.50M	2.8m	§J	100	100	50	50m	.02uØ	6.0Ø	1.0mØ	10 Δ	15u	600	3.0	45p	AØ	TO5	
30#	BCY21	350m	500k	2.7m	§J	50	50	30	50m	20nØ	6.0Ø	1.0mØ	10 Δ	15u	600	3.0	45p	PEM	TO5	
31#	BCY23	350m	500k	2.7m	§J	10	30	30	50m	20nØ	6.0Ø	1.0mØ	20 Δ	50u	1.4k	4.0	45p	PEM	TO5	
32#	BCY26	350m	600k	2.7m	§J	30	30	30	50m	20nØ	6.0Ø	1.0mØ	10 Δ	20u	600	3.0	45p	PEM	TO5	
33	BCY19	350m	.70M	2.8m	§J	50	50	30	50m	.02uØ	6.0Ø	1.0mØ	20 Δ	25u	1.4k	4.0	45p	AØ	TO5	
34#	BCY24	350m	1.0M	2.7m	§J	30	10	30	50m	20nØ	6.0Ø	1.0mØ	10 Δ	20u	600	3.0	45p	PEM	TO5	
35	BCY17	350m	1.2M	2.8m	§J	30	30	30	50m	.02uØ	6.0Ø	1.0mØ	20 Δ	35u	1.4k	4.0	45p	AØ	TO5	
36	BCY18	350m	2.0M	2.8m	§J	30	30	30	50m	.02uØ	6.0Ø	1.0mØ	40 Δ	40u	1.8k	5.0	45p	AØ	TO5	
37#	BCY25	350m	2.5M	2.7m	§J	30	10	30	50m	20nØ	6.0Ø	1.0mØ	40 Δ	50u	1.8k	5.0	45p	PEM	TO5	
38#	BCY90	350m	15.M§	2.9m	§J	40	40	20	50m	2nØ	6.0Ø	1.0mØ	25				4p$	PEØ	TO18	AØ
39#	BCY91	350m	15.M§	2.9m	§J	40	40	20	50m	2nØ	6.0Ø	1.0mØ	42				4p$	PEØ	TO18	AØ
40#	BCY92†	350m	15.M§	2.9m	§J	40	40	20	50m	2nØ	6.0Ø	1.0mØ	70				4p$	PEØ	TO18	AØ
41#	BCY93	350m	15.M§	2.9m	§J	70	70	30	50m	2nØ	6.0Ø	1.0mØ	25				4p$	PEØ	TO18	AØ
42#	BCY94	350m	15.M§	2.9m	§J	70	70	30	50m	2nØ	6.0Ø	1.0mØ	42				4p$	PEØ	TO18	AØ
43#	BCY95†	350m	15.M§	2.9m	§J	70	70	30	50m	2nØ	6.0Ø	1.0mØ	70				4p$	PEØ	TO18	AØ
44#	BCY96	350m	15.M§	2.9m	§J	90	90	30	50m	2nØ	6.0Ø	1.0mØ	25				4p$	PEØ	TO18	AØ
45#	BCY97	350m	15.M§	2.9m	§J	90	90	30	50m	2nØ	6.0Ø	1.0mØ	42				4p$	PEØ	TO18	AØ
46#	TCH98†	350m	15.M§	2.9m	§J	40	40	20	50m	2nØ	6.0Ø	1.0mØ	125				4p$	PEØ	TO18	AØ
47#	TCH99†	350m	15.M§	2.9m	§J	70	70	30	50m	2nØ	6.0Ø	1.0mØ	125				4p$	PEØ	TO18	AØ
48▼#	BFS37	350m	30M§Δ	2.3m	§J	45	45 ☑	5.0	500m#	10n	5.0Ø	10uØ	100 Δ†				8.0p☑	Ø	u53	F
49▼#	BFS37A	350m	30M§Δ	2.3m	§J	30	30 ☑	5.0	500m#	100n	5.0Ø	100uØ	100 Δ†				8.0p☑	Ø	u53	F
50	2N1196	350m	40M§	2.0m	§A	70	70	4.0	15m	250nØ	10	2.0m	10	300nb	20	600m	4.0p☑	MEØ	TO5	A
51	2N5254*	350m	40M§Δ	3.4m	♦J	40	40	5.0	50m	.01uØ	5.0Ø	1.0mØ	70 Δ	70u☑	25k☑	12 ☑		Ø	L17t	
52	2N5255*	350m	40M§Δ	3.4m	♦J	40	40	5.0	50m	.01uØ	5.0Ø	1.0mØ	175 Δ	70u☑	25k☑	12 ☑	6p$☑	Ø	L17t	
53	2N5256*	350m	40M§Δ	3.4m	♦J	40	40	5.0	50m	.01uØ	5.0Ø	1.0mØ	175 Δ	70u☑	25k☑	12 ☑	6p$☑	Ø	L17t	
54	2N1197	350m	45M§	2.0m	§A	70		4.0	15m	250nØ	10	2.0m	10	300nb	20	600m	3.0p	MEØ	TO5	A
55▼#	BFS44	350m	60M§Δ	2.3m	§J	60	30 ☑	5.0	1.0 #	100nØ	10Ø	10mØ	25 Δ†				25p☑		u53	F
56▼#	BFS45	350m	60M§Δ	2.3m	§J	60	60 ☑	5.0	1.0 #	100nØ	10Ø	10mØ	35 Δ†				25p☑		u53	F
57	2N4354†	350m	100M§Δ	3.4m	♦J	60	60	5.0	500m	.05uØ	10Ø	.10mØ	25 †Δ				3p$	Ø	R124 b	A
58	2N4355†	350m	100M§Δ	3.4m	♦J	60	60	5.0	500m	.05uØ	10Ø	.10mØ	60 †Δ				3p$	Ø	R124 b	A
59	2N4356†	350m	100M§Δ	3.4m	♦J	80	80	5.0	500m	.05uØ	10Ø	.10mØ	25 †Δ				3p$	Ø	R124 b	A
60▼#	BFS40	350m	150M§Δ	2.3m	§J	45	35 ☑	5.0	500m#	500n	6.0Ø	100uØ	20 Δ†				5.0p☑		u53	F
61▼#	BFS40A	350m	150M§Δ	2.3m	§J	25	25 ☑	5.0	500m#	500n	6.0Ø	10mØ	50 Δ†				5.0p☑		u53	F
62▼#	BFS41	350m	150M§Δ	2.3m	§J	45	45 ☑	5.0	500m#	50n	6.0Ø	10mØ	40 Δ†				5.0p☑		u53	F
63#	2V205*	350m	160M§	2.3m	§J	15		3.0		.05uØ	1.0Ø	1.0mØ	42 †				8.0p	DPEØ	L17a	
64	2N3673†	350m	200M§Δ	2.0m	§S	60	50	5.0	600m	10nØ	10Ø	.10mØ	55 †Δ				9p☑		TO46	AØ
65	2N4452†	350m	200M§Δ	2.0m	§J	45	45	5.0	600m	.01uØ	10Ø	10mØ	135 Δ	800u☑	2.3k☑	15 ☑	8p$☑		TO46	A
66#	BCY72	350m	200M§Δ	2.0m	§J	25	25	5.0	200m#	100nØ	1.0Ø	10mØ	50 †Δ					PE	TO18	Ø
67#	BCY70	350m	250M§Δ	2.0m	§J	50	40	5.0	200m#	10nØ	1.0Ø	10mØ	50 †Δ					PE	TO18	Ø
68	MD3467F†	350m	250M§	2.0m	§J	40	40	5.0	1	.10uØ	1.0Ø	500mØ	40 †#				11p$	AN	L17d	
69	MD3762F†	350m	250M§	2.0m	§J	40	40	5.0	1.5	.10uØ	2.0Ø	1 Ø	40 †#				11p$	AN	L17d	
70#	BCY71	350m	300M§Δ	2.0m	§J	45	45	5.0	200m#	.01uØ	1.0Ø	10mØ	100 †Δ					PEØ	TO18	AØ
71▼#	BSV37†	350m	400M§Δ	2.3m	§J	12	12 ☑	4.0	500m#	100n	.50Ø	30mØ	40 Δ†				6.0p☑		u53	F
72	2N4058	360m		2.9m	§S	30	30	6.0	30m	.10uØ	5.0Ø	.10mØ	100 Δ					†	TO92	B
73	2N4059	360m		2.9m	§S	30	30	6.0	30m	.10uØ	5.0Ø	1.0mØ	45 Δ					†	TO92	B
74	2N4060	360m		2.9m	§S	30	30	6.0	30m	.10uØ	5.0Ø	1.0mØ	45 Δ					†	TO92	B
75	2N4061	360m		2.9m	§S	30	30	6.0	30m	.10uØ	5.0Ø	1.0mØ	90 Δ					†	TO92	B
76	2N4062	360m		2.9m	§S	30	30	6.0	30m	.10uØ	5.0Ø	1.0mØ	180 Δ					†	TO92	B
77	2N5354	360m		3.6m	§S	25	25	4.0	500m	.10u	10Ø	2.0mØ	32 Δ				8p$☑		TO98	B
78	2N5355	360m		3.6m	§S	25	25	4.0	500m	.10u	10Ø	2.0mØ	80 Δ				8p$☑		TO98	B
79	2N5356	360m		3.6m	§S	25	25	4.0	500m	.10u	10Ø	2.0mØ	200 Δ				8p$☑		TO98	B
80	2N5365	360m		3.6m	§S	40	40	4.0	500m	.10u	10Ø	2.0mØ	32 Δ				8p$☑		TO98	B
81	2N5366	360m		3.6m	§S	40	40	4.0	500m	.10u	10Ø	2.0mØ	80 Δ				8p$☑		TO98	B
82	2N5367	360m		3.6m	§S	40	40	4.0	500m	.10u	10Ø	2.0mØ	200 Δ				8p$☑		TO98	B
83▼#	BC281A	360m		2.0m	§J	45	45	6.0	200m	10n†	5.0Ø	1.0mØ	50 †Δ	12m	3.4k	1.8	5.0p	DPE	TO18	
84▼#	BC281B	360m		2.0m	§J	45	45	6.0	200m	10n†	5.0Ø	1.0mØ	100 †Δ	14m	5.0k	2.6	5.0p	DPE	TO18	
85▼#	BC281C	360m		2.0m	§J	45	45	6.0	200m	10n†	5.0Ø	1.0mØ	150 †Δ	19m	6.5k	3.3	5.0p	DPE	TO18	
86	PET4058	360m		3.6m	♦J	30	30	5.0	100m	100nØ	5.0Ø	100uØ	100 †Δ					PEØ	R110	A
87	PET4059	360m		3.6m	♦J	30	30	5.0	100m	100nØ	5.0Ø	1.0mØ	45 †Δ					PE	R110	A
88	PET4060	360m		3.6m	♦J	30	30	5.0	100m	100nØ	5.0Ø	1.0mØ	45 †Δ					PE	R110	A
89	PET4061	360m		3.6m	♦J	30	30	5.0	100m	100nØ	5.0Ø	1.0mØ	90 †Δ					PE	R110	A
90	PET4062	360m		3.6m	♦J	30	30	5.0	100m	100nØ	5.0Ø	1.0mØ	180 †Δ					PE	R110	A
91	2N3962	360m	40M§Δ	2.0m	§J	60	60	6.0	200m	.01uØ	5.0Ø	1.0mØ	100 Δ	40u☑	17k☑	10 ☑	6p☑	Ø	TO18	AØ
92	2N3963	360m	40M§Δ	2.0m	§J	80	80	6.0	200m	.01uØ	5.0Ø	1.0mØ	100 Δ	40u☑	17k☑	10 ☑	6p☑	Ø	TO18	AØ
93#	BFW20	360m	40M§Δ	2.0m	§J	60	60	6.0		.01u§	5.0Ø	1.0mØ	300	19u	8k	10 ☑	6p☑	DPLØ	TO18	AØ
94#	BFW21	360m	40M§Δ	2.0m	§J	80	80	6.0		.01u§	5.0Ø	1.0mØ	300	19u	8k	10 ☑	6p☑	DPLØ	TO18	AØ
95#	BFX37	360m	40M§Δ	2.0m	§J	60	60 Ø	6.0	50m	.02u§	5.0Ø	1.0mØ	200 †				5.0p	DPLØ	TO18	
96	TZ581	360m	40M§	2.8m	§J	40	30	5.0	500m	10nØ	5.0Ø	1.0mØ	325	100nb	26		5.0p	PLØ	TO98	B
97	TZ582	360m	40M§	2.8m	§J	40	30	5.0	500m	10nØ	5.0Ø	1.0mØ	225	100nb	26		5.0p	PLØ	TO98	B
98	2N3039†	360m	50M§Δ	2.4m	§S	50	35	5.0	500m	.02uØ	10Ø	10mØ	20 Δ	250u☑	600 ☑		40p☑		TO50	A
99	2N3040†	360m	50M§Δ	2.4m	§S	40	30	5.0	500m	.02uØ	10Ø	10mØ	40 Δ	500u☑	1.2k☑		40p☑		TO50	A
100	2N3964	360m	50M§Δ	2.0m	§J	45	45	6.0	200m	.01uØ	5.0Ø	1.0mØ	250 Δ	50u☑	20k☑	10 ☑	6p☑	Ø	TO18	AØ
101	2N3965	360m	50M§Δ	2.0m	§J	60	60	6.0	200m	.01uØ	5.0Ø	1.0mØ	250 Δ	50u☑	20k☑	10 ☑	6p☑	Ø	TO18	AØ
102#	BFW22	360m	50M§Δ	2.0m	§J	45	45	6.0		.01u§	5.0Ø	1.0mØ	360	25u	10k	10 ☑	6p☑	DPLØ	TO18	AØ
103#	BFW23	360m	50M§Δ	2.0m	§J	60	60	6.0		.01u§	5.0Ø	1.0mØ	360	25u	10k	10 ☑	6p☑	DPLØ	TO18	AØ
104	TIS38	360m	50M§Δ	2.9m	§S	35	32	4.0	50m	.10uØ	9.0Ø	1.0mØ	25 †Δ				1.7p$	PE†	TO92	B
105	TIS37	360m	80M§Δ	2.9m	§S	35	32	6.0	50m	.10uØ	9.0Ø	1.0mØ	45 †Δ				1.7p$	PE†Ø	TO92	B
106	FT0019H	360m	90M§	2.0m	§J	100	80	6.0		10nØ	5.0Ø	1.0mØ	183	14u	5.0k	2.7	6.0p☑	DPL	TO18	Ø
107	FT0019M	360m	90M§	2.0m	§J	80	60	6.0		10nØ	5.0Ø	1.0mØ	183	14u	5.0k	2.7	6.0p☑	DPL	TO18	Ø
108♦	TIS104	360m	90MΔ§	2.8m	§S	60	60	6.0	50m	50nØ	5.0Ø	1.0mØ	210	15u	6.0k	1.3	4.0p☑$	PE†	X55	A
109	2N869	360m	100M§Δ	2.0m	§J	25	18	5.0		.01uØ	5.0Ø	10mØ	20 †#Δ				9p☑		TO18	AØ
110	2N995	360m	100M§Δ	2.0m	§J	20	15	4.0		5.0nØ	1.0Ø	20mØ	35 †#Δ				10p☑		TO18	AØ

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N2695†	360m	100M§Δ	2.0m	§J	25	25	4.0	500m	.02uØ	1.0Ø	50mØ	30 #†Δ	1.2mØ	1.5kØ	26 Ø	20pØ	PLE	TO46	AØ
2	2N2696†	360m	100M§Δ	2.0m	§J	25	25	4.0	500m	.02uØ	1.0Ø	50mØ	30 #†Δ	1.2mØ	1.5kØ	26 Ø	20pØ	PE	TO46	AØ
3	2N3702	360m	100M§Δ	2.8m	§S	40	25	5.0	200m	100nØ	5.0Ø	50mØ	60 †#Δ				12pØ		TO92	B
4	2N3703	360m	100M§Δ	2.8m	§S	50	30	5.0	200m	100nØ	5.0Ø	50mØ	30 †#Δ				12pØ		TO92	B
5	2N5447	360m	100M§Δ	2.9m	§S	40	25	5.0	200m	.10uØ	5.0Ø	50mØ	60 †#Δ				12p$		X55	A
6	2N5448	360m	100M§Δ	2.9m	§S	50	30	5.0	200m	.10uØ	5.0Ø	50mØ	30 †#Δ				12p$		X55	A
7	PET3702	360m	100M§Δ	3.6m	♦J	40	25	5.0	500m	100nØ	5.0Ø	50mØ	60 †#Δ				12pØ		R110	A
8	PET3703	360m	100M§Δ	3.6m	♦J	50	30	5.0	500m	100nØ	5.0Ø	50mØ	30 †#Δ				12pØ		R110	A
9	PET8300	360m	100M§Δ	3.6m	♦J	40	40	5.0	100m	10n	10Ø	1.0mØ	180 Δ					PEØ	R110	A
10	PET8301	360m	100M§Δ	3.6m	♦J	40	40	5.0	100m	10n	10Ø	1.0mØ	110 Δ					PEØ	R110	A
11	PET8302	360m	100M§Δ	3.6m	♦J	30	30	5.0	100m	10nØ	10Ø	1.0mØ	300 Δ					PEØ	R110	A
12	PET8303	360m	100M§Δ	3.6m	♦J	30	30	5.0	100m	10nØ	10Ø	1.0mØ	110 Δ					PEØ	R110	A
13	PET8304	360m	100M§Δ	3.6m	♦J	30	30	5.0	100m	10nØ	10Ø	1.0mØ	50 Δ					PEØ	R110	A
14	TP3638†	360m	100M§Δ				25				1.0Ø	50mØ	30 †				20p$	PE	X93	A
15▼	LDA454	360m	125M§	2.9m	§J	35	35	5.0	30m	10nØ	10Ø	2.0mØ	2.5				6.0pØ	PEØ	u34	P
16▼	LDA455	360m	125M§	2.9m	§J	35	35	5.0	30m	10nØ	10Ø	20mØ	2.5				6.0pØ	PEØ	u34	P
17	2N3073†	360m	130M§Δ	2.0m	§J	60	60	4.0	500m	.01u§	10Ø	10mØ	25 Δ	1.2mØ	1.5kØ	26 Ø	10pØ		TO18	AØ
18	2N3121†	360m	130M§Δ	2.0m	§J	45	45	4.0	500m	.01u§	10Ø	10mØ	25 Δ	1.2mØ	1.5kØ	26 Ø	10pØ		TO18	AØ
19	2N5372†	360m	150M§Δ	2.9m	§J	60	30	5.0	500m	50nØ	10Ø	1.0mØ	20 †Δ				10p$		X93	A
20	2N5373†	360m	150M§Δ	2.9m	§J	60	30	5.0	500m	50nØ	10Ø	1.0mØ	50 †Δ				10p$		X93	A
21	2N5374†	360m	150M§Δ	2.9m	§J	60	30	5.0	500m	50nØ	10Ø	1.0mØ	100 †Δ				10p$		X93	A
22	2N5375†	360m	150M§Δ	2.9m	§J	40	30	5.0	500m	50nØ	10Ø	1.0mØ	20 †Δ				10p$		X93	A
23#	BCW35	360m	150M	2.7m	§	60	45	5.0	600m	10n	5.0Ø	100mØ	100 Δ	5.0u	40k	10	6.0p	PEØ	TO18	
24#	ME0404	360m	150M§Δ	2.9m	§J	25		4.0		.10uØ	5.0Ø	50mØ	30 †Δ				12pØ	PE♦†	TO106	A
25	TP3638A†	360m	150M§Δ				25				1.0Ø	50mØ	100 †				10p$	PE	X93	A
26	TZ551†	360m	150M§Δ	2.8m	§J	60	30	5.0	500m	50nØ	10Ø	1.0mØ	20 †Δ				10p$	PL	TO98	B
27	TZ552†	360m	150M§Δ	2.8m		60	30	5.0	500m	50nØ	10Ø	1.0mØ	50 †Δ				10p$	PL	TO98	B
28	TZ553†	360m	150M§Δ	2.8m		60	30	5.0	500m	50nØ	10Ø	1.0mØ	100 †Δ				10p$	PL	TO98	B
29	TZ554†	360m	150M§Δ	2.8m		40	30	5.0	500m	50nØ	10Ø	1.0mØ	20 †Δ				10p$	PL	TO98	B
30	2N996†	360m	160MΔ	2.0m	§J	15	12	4.0		5nØ	1.0Ø	20mØ	75 †#	40u	2.0k	1.4	7.5p	PEØ	TO18	AØ
31	2N4359	360m	200M§Ø	2.0m	§J	45	45	5.0	50m	.01uØ	5.0Ø	1.0mØ	700 Ø	60uØ	20kØ	10 Ø	6pØ	Ø	TO18	AØ
32	2N5378	360m	200M§Δ	2.8m	§J	40	30	5.0	500m	10nØ	5.0Ø	1.0mØ	120 Δ	500nØb	32 Ø		10p$	Ø	X93	A
33	2N5379	360m	200M§Δ	2.8m	§J	40	30	5.0	500m	10nØ	5.0Ø	1.0mØ	100 Δ	500nØb	32 Ø		10p$	Ø	X93	A
34	2N5382	360m	200M§				40				1.0Ø	10mØ	50 †Δ				4.5p$		X55	A
35♦#	AT430	360m	200MΔ§	2.0m	§J	30	30	5.0	500m	200nØ	10Ø	150mØ	30 †Δ				8.0pØ	PE	TO18	AØ
36▼#	AT431	360m	200MΔ§	2.0m	§J	45	45	5.0	500m	200n	10Ø	150mØ	30 Δ				8.0pØ	PE	TO18	AØ
37▼#	AT432	360m	200MΔ§	2.0m	§J	30	30	5.0	500m	200n	10Ø	150mØ	100 Δ				8.0pØ	PE	TO18	AØ
38▼#	AT433	360m	200MΔ§	2.0m	§J	45	45	5.0	500m	200n	10Ø	150mØ	100 Δ				8.0pØ	PE	TO18	AØ
39▼#	AT434	360m	200MΔ§	2.0m	§J	30	30	5.0	500m	200n	10Ø	150mØ	30 Δ				8.0pØ	PE	TO18	AØ
40▼#	AT435	360m	200MΔ§	2.0m	§J	45	45	5.0	500m	200n	10Ø	150mØ	30 Δ				8.0pØ	PE	TO18	AØ
41▼#	AT436	360m	200MΔ§	2.0m	§J	25	25	4.0	500m	200n	2.0Ø	250mØ	40 Δ				8.0pØ	PE	TO18	AØ
42#	BFV86†	360m	200M§Δ	500u	§S	60	40	5.0	600m	.02uØ	10Ø	1.0mØ	50 †Δ				8pØ	PE	u26a	B
43#	BFV86A†	360m	200M§Δ	500u	§S	60	60	5.0	600m	.01uØ	10Ø	1.0mØ	100 †Δ				8pØ	PE	u26a	B
44#	BFV86B†	360m	200M§Δ	500u	§S	60	40	5.0	600m	.02uØ	10Ø	1.0mØ	25 †Δ				8pØ	PE	u26a	B
45#	BFV86C†	360m	200M§Δ	500u	§S	60	60	5.0	600m	.01uØ	10Ø	1.0mØ	40 †Δ				8pØ	PE	u26a	B
46	BSX36†	360m	200M§	2.0m	§J	40	40	5.0	500m	.01uØ	10Ø	.01mØ	50 †				8pØ	DPEØ	TO18	AØ
47	LDA450	360m	200M§Δ	2.9m	§J	45	30	5.0		10nØ	10Ø	1.0mØ	35 †Δ				8pØ	PE	u34c	P
48	LDA451	360m	200M§Δ	2.9m	§J	45	30	5.0		10nØ	10Ø	1.0mØ	75 †Δ				8pØ	PE	u34c	P
49	LDA452†	360m	200M§Δ	2.9m	§J	45	30	5.0	300m	10nØ	10Ø	150mØ	40 †Δ#				8pØ	PE	u34c	P
50	LDA453†	360m	200M§Δ	2.9m	§J	45	30	5.0	300m	10nØ	10Ø	150mØ	100 †Δ#				8pØ	PE	u34c	P
51#	ME0401†	360m	200M§Δ	2.8m	§J	60	50	5.0	600m	50n§	10Ø	150mØ	40 †Δ#				10pØ	PE	R110	A
52#	ME0402†	360m	200M§Δ	2.8m	§J	60	45	5.0	600m	50n§	10Ø	150mØ	100 †Δ#				10pØ	PE	R110	A
53#	ME0404-1	360m	200M§Δ	2.9m	§J	40		5.0		.05u§	1.0Ø	50mØ	30 †Δ				10pØ	PEΔ†	TO106	A
54#	ME0404-2	360m	200M§Δ	2.9m	§J	40		5.0		.05u§	1.0Ø	50mØ	75 †Δ				10pØ	PEΔ†	TO106	A
55#	ME501Δ	360m	200MΔ	2.7m	§J	25		12	500m	100nØ	1.0Ø	50mØ	10 †Δ#				13pØ	PEΔ	TO106	A
56#	ME502	360m	200M§Δ	2.9m	§J	25	20 *	12	500m	.10uØ	1.0Ø	50mØ	20 †#Δ				13pØ	PE	TO106	A
57#	ME503	360m	200M§Δ	2.9m	§J	30	30	30	500m	.10uØ	5.0Ø	50mØ	40 †#Δ				13pØ	PEΔ	R110	
58#	ME511	360m	200MΔ	2.9m	§J	50		40	500m	.10uØ	1.0Ø	50mØ	10 †#Δ				13pØ	PEΔ	TO106	A
59#	ME512	360m	200M§Δ	2.9m	§J	50		40	500m	.10uØ	1.0Ø	50mØ	20 †#Δ				13pØ	PEΔ†	TO106	A
60#	ME513	360m	200M§Δ	2.8m	§J	70	60	60	500m	100nØ	5.0Ø	50mØ	40 †Δ#				13pØ	PEΔ	R110	A
61	MM3905†	360m	200M§Δ	2.0m	§J	40	40	5.0	200m	50n#	10Ø	1.0mØ	50 Δ	1.0u	500	100m	5.0pØ	ANØ	TO52	A
62	PET3905	360m	200M§Δ	3.5m	♦J	40	40	5.0	200m	50nØ	1.0Ø	10mØ	50 †Δ				4.5p	PE	R110	A
63	PET4125	360m	200M§Δ	3.5m	♦J	30	30	4.0	200m	50n#	1.0Ø	2.0mØ	50 †Δ				4.5p	PE	R110	A
64#	PL4031†	360m	200M§Δ	2.4m	§S	60	40	5.0	600m	20nØ	10Ø	1.0mØ	25 †Δ				8pØ	PE	u51	
65#	PL4032†	360m	200M§Δ	2.4m	§S	60	60 *	5.0	600m	10nØ	10Ø	1.0mØ	40 †Δ				8pØ	PE	u51	
66#	PL4033†	360m	200M§Δ	2.4m	§S	60	40	5.0	600m	20nØ	10Ø	1.0mØ	50 †Δ				8pØ	PE	u51	
67#	PL4034†	360m	200M§Δ	2.4m	§S	60	60 *	5.0	600m	10nØ	10Ø	1.0mØ	100 †Δ				8pØ	PE	u51	
68	2N3248†	360m	250M§Δ	2.0m	§J	15	12	5.0	200m	.05u#	1.0Ø	.10mØ	50 †#Δ				8pØ		TO18	AØ
69	2N3250†	360m	250M§Δ	2.0m	§J	50	40	5.0	200m	.02u#	10Ø	1.0mØ	50 Δ	40uØ	6.0k	10	6pØ	Ø	TO18	AØ
70	2N3250A†	360m	250M§Δ	2.0m	§J	60	60	5.0	200m	.02u#Ø	1.0Ø	10mØ	50 †#Δ	40uØ	6kØ	10 Ø	6pØ	EAΔØ	TO18	AØ
71	JAN2N3250A†	360m	250M§Δ	2.0m	§S	60	60	5.0	200m	20nØ	10Ø	1.0mØ	50 Δ	40uØ	6.0kØ	10 Ø	6.0pØ	Ø	TO18	AØ
72	2N3545†	360m	250M§Δ	2.0m	§J	20	20	5.0	200m	.01u#	1.0Ø	1.0mØ	40 †Δ				8pØ		TO18	AØ
73	2N5383	360m	250M§				40				1.0Ø	10mØ	100 †Δ				4.5p$		X55	A
74	MM3906†	360m	250M§Δ	2.0m	§J	40	40	5.0	200m	50n#	10Ø	1.0mØ	100 Δ	3.0u	2.0k	1.0	5.0pØ	ANØ	TO52	A
75	PET3906	360m	250M§Δ	3.5m	♦J	40	40	5.0	200m	50n#	1.0Ø	10mØ	100 †Δ				4.5p	PE	R110	A
76	PET4126	360m	250M§Δ	3.5m	♦J	25	25	4.0	200m	50nØ	1.0Ø	2.0mØ	120 †Δ				4.5p	PE	R110	A
77	TIS61	360m	250M§	2.9m	§J	40	25	5.0	400m	.01uØ	2.0Ø	50mØ	155 *†					PE	TO92	
78	JAN2N2604	360m	300M§Ø	2.0m	§J	80	60	6.0	30m	40n	5.0Ø	1.0mØ	350 Ø	40uØ	10kØ	10 Ø	6.0p	Ø	TO46	AØ
79	JAN2N2605	360m	300M§Ø	2.0m	§J	70	60	6.0	30m	40n	5.0Ø	1.0mØ	600 Ø	60uØ	20kØ	10 Ø	6.0p	Ø	TO46	AØ
80	2N3249†	360m	300M§Δ	2.0m	§J	15	12	5.0	200m	.05u#	1.0Ø	.10mØ	100 †#Δ				8pØ		TO18	AØ
81	2N3251†	360m	300M§Δ	2.0m	§J	50	40	5.0	200m	.02u#	10Ø	1.0mØ	100 Δ	60uØ	12kØ	20 Ø	6pØ	Ø	TO18	AØ
82	2N3251A†	360m	300M§Δ	2.0m	§J	60	60	5.0	200m	20n#	1.0Ø	10mØ	100 †#Δ	60uØ	12kØ	20 Ø	6.0pØ	EAΔ	TO18	AØ
83	JAN2N3251A†	360m	300M§Δ	2.0m	§S	60	60	5.0	200m	20nØ	10Ø	1.0mØ	100 Δ	60 Ø	12kØ	20 Ø	6.0pØ	Ø	TO18	AØ
84	GET3638†	360m	300M§	3.6m	♦J	25	25	4.0	350m	35n§Ø	10Ø	10mØ	25 Δ				10p$	PE	TO18	
85	GET3638A†	360m	300M§	3.6m	♦J	25	25	4.0	350m	35n§Ø	10Ø	10mØ	100 Δ				10p$	PE	TO18	
86▼	MD1T3251	360m	300M§		§A	50	40	5.0	200m		20Ø	10mØ	3.0 Δ				6.0pØ	Δ	TO122	P
87	2N3829†	360m	350M§Δ	2.4m	§S	35	35 Ø	5.0	200m	.3u§Ø	.40Ø	30mØ	30 †#Δ				6pØ		TO52	AØ
88	JAN2N869A†	360m	400M§Δ	2.1m	§J	25	18	5.0		10n§	5.0Ø	10mØ	40 †Δ#				6.0pØ	Ø	TO18	AØ
89	2N2894†	360m	400M§Δ	2.0m	§J	12	12	4.0	200m	.08u§	.50Ø	30mØ	40 †#Δ				6pØ		TO18	AØ
90	2N3012†	360m	400M§Δ	2.0m	§J	12	12	4.0	200m		.50Ø	30mØ	30 †#Δ				6pØ	PE	TO18	AØ
91	2N3576†	360m	400M§Δ	2.4m	§S	20	15	5.0	200m	.01u§	.50Ø	10mØ	40 †Δ				4.6pØ		TO18	AØ
92	2N4034†	360m	400M§Δ	2.0m	§J	40	40	5.0	100m	15n§	10Ø	1.0mØ	50 Δ	24uØ	8.0kØ	3.0 Ø	4.0p$Ø		TO18	AØ
93#	BSV21†	360m	400M§Δ	2.0m	§J	12	12	5.0	200m	80n§	.30Ø	10mØ	25 †Δ#				6pØ	PE	TO18	AØ
94	TIS50†	360m	400M§Δ	2.9m	§J	12	12	4.0	200m	1u§†	1.0Ø	100mØ	20 †#Δ				6pØ	PE	TO92	
95	2N4035†	360m	450M§Δ	2.0m	§J	40	40	5.0	100m	15n§	10Ø	1.0mØ	150 Δ	40uØ	12kØ	4.0 Ø	4.0p$Ø		TO18	AØ
96♦	2N5244§	360m	450M§Δ	2.0m	§J	40	40	5.0	100m	15n§	1.0Ø	1.0mØ	150 †Δ				3.5p$	Δ	TO18	AØ
97	2N3798	360m	500M§	2.0m	§S	60	60	5.0	50m	.01uØ	5.0Ø	10mØ	125 †Δ	60uØ	30kØ	25 Ø	4pØ	Ø	TO18	AØ
98	2N3799	360m	500M§	2.0m	§S	60	60	5.0	50m	.01uØ	5.0Ø	10mØ	250 †Δ	60uØ	40kØ	25 Ø	4pØ	Ø	TO18	AØ
99	MM4048	360m	500M§Ø	2.0m	§J	45	45	5.0	50m	.01uØ	5.0Ø	.50mØ	150 †Δ				4pØ	ANØ	TO18	A
100	TIS53†	360m	500M§Δ	2.9m	§J	6.0	6.0	4.0	80m	.01u§	1.0Ø	50mØ	20 †#				5.5pØ	PE	TO92	
101	TIS54†	360m	500M§Δ	2.9m	§J	12	12	4.0	80m	.01u§	1.0Ø	50mØ	20 †#				5.5pØ	PE	TO92	
102#	BFX48†	360m	550M§	2.0m	§J	30	30	5.0	100m	15n§	1.0Ø	100uØ	130 †				2.2p	DPEØ	TO18	Ø
103	2N5056†	360m	600M§Δ	2.1m	§J	15	15	4.5	100m	.05u§	.50Ø	1.0mØ	12 †Δ				4.5p$		TO18	AØ
104	JAN2N5332§	360m	600M§Δ	2.3m	§J	20	12	2.0	100m	10nØ	1.0Ø	1.0mØ	20 †Δ				3.5p$	Δ	TO46	AØ
105	2N869A†	360m	640MΔ	2.0m	§J	25	18	5.0	200m	.01uØ	.50Ø	30mØ	40 †#Δ				6pØ	PE	TO18	AØ
106	2N3209†	360m	640M	2.0m	§J	20	20	4.0	200m	.08uØ	.50Ø	30mØ	75 †#				5pØ	PE	TO18	AØ
107	2N3546†	360m	700M§Δ	2.0m	§J	15	12	4.5	200m	.01u§	1.0Ø	10mØ	30 †Δ				6pØ		TO18	AØ
108#	BSX29†	360m	700M§	2.0m	§J	12	12	4.0		.08u§	1.0Ø	100mØ	40 †#				3.3p	DPE	TO18	AØ
109	2N2894A†	360m	800M§Δ	2.0m	§J	12	12 Ø	4.5	200m	10utØ	.50Ø	30mØ	40 Δ†#				4.5p		TO18	Ø
110	2N5057†	360m	800M§Δ	2.1m	§J	15	15	4.5	100m	.05u§	.50Ø	1.0mØ	20 †Δ				4.5p$		TO18	AØ

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N5332§	360m	800M§Δ	2.4m	§S	20	12	2.0	100m	.01uØ	1.0Ø	1.0mØ	20 †Δ				3.5p Ø	Δ	TO46	AØ
2#	BSW25†	360m	1.2G§	2.0m	§J	12	12	4.5		.05u§	.50Ø	30mØ	63 †#				3.3p	DPE	TO18	AØ
3	2N2425†	375m	10.MΔ	3.0m	§S	50	10	30	50m	.10uØ	.50Ø	5.0m	25 †Δ				14p	A	TO5	A
4	2N2424†	375m	15.MΔ	3.0m	§S	40	5.0	20	50m	.10uØ	.50Ø	5.0m	30 †Δ				14p	A	TO5	A
5	2N935	385m	.20M	2.9m	§J	50	40	20	50m	.10uØ	1.5Ø	1.0mΔ	11 †	35u	1.0k		70p	AΔ	TO18	A
6	2N936	385m	.30M	2.9m	§J	50	35	20	50m	.10uØ	.50Ø	3.0mØ	28	40u	1.7k		70p	AΔ	TO18	A
7	2N330A	385m	.50M	2.9m	§J	50	0.0	20	50m	1.0uØ	5.0Ø	3.0mØ	25	40u	1.2k		70p	AØΔ	TO5	A
8	2N937	385m	.50M	2.9m	§J	50	30	20	50m	.10uØ	.50Ø	.10mØ	60	50u	3.0k		70p	AΔ	TO18	A
9	2N329A	390m	.50M	1.9m	§J	50	30	20	50m	.10uØ	.50Ø	3.0mØ	60 †	50u	3.0k		70p	FAΔ	TO5	A
10	2N3581	400m		2.2m	§S	50	40	6.0	30m	20nØ	5.0Ø	100uØ	150 †	1.0uØb	35	10	6.0pØ	Ø	TO46	AØ
11	2N3582	400m		2.2m	§S	50	40	6.0	30m	20nØ	5.0Ø	100uØ	300 †	1.0uØb	35	10	6.0pØ	Ø	TO46	AØ
12▼#	BC283	400m		2.2m	§J	30	30	5.0	600m	500nØ	5.0Ø	50mØ	40 †Δ	920m	155m	4.6	7.0p	DPL	TO18	
13▼	MD1T2605	400m			§A	60	45	6.0	30m	10nØ	5.0	1.0m	150 Δ				6.0pØ		TO122	P
14	JAN2N328A	400m	200kΔ	2.2m	§J	50	40	30		100n	.50Ø	3.0mØ	18 †Δ				110pØ		TO5	A
15	JAN2N329A	400m	250kΔ	2.2m	§J	50	35	30		100n	.50Ø	3.0mØ	36 †Δ				110pØ		TO5	A
16	JAN2N1234†	400m	300kΔ	2.9m	§J	110	110	110		100nØ	2.0Ø	10mØ	10 †Δ	2.0uØb	60 Ø		150pØ		TO5	A
17	2N1234	400m	800kΔ	2.9m	§J	110	110	110		100nØ	2.0Ø	10mØ	14 †	1.2ub	30	4.0	95p	A	TO5	A
18	2N1232	400m	1.0M	2.9m	§J	60	60	60		100nØ	2.0Ø	1.0mØ	14 †	1.2ub	30	4.0	95p	A	TO5	A
19	2N1233	400m	1.0M	2.9m	§J	60	60	60		100nØ	2.0Ø	10mØ	30 †	1.2ub	30	4.0	95p	A	TO5	A
20	2N1439	400m	1.0MΔ	2.3m	§A	50		50	100m	.02u	6.0	1.0m	9.0	35u	1.0k		5.0p	A	TO5	A
21	2N1440	400m	1.0MΔ	2.2m	§J	60	50	60	100m	50u	6.0Ø	1.0mØ	15	1.7ub	60	16	5.0p	A	TO5	A
22	2N1441	400m	1.0MΔ	2.2m	§J	50	35	50	100m	50u	6.0Ø	1.0mØ	27	1.7ub	60	16	5.0p	A	TO5	A
23	2N1442	400m	1.0MΔ	2.2m	§J	50	30	50	100m	50u	6.0Ø	1.0mØ	43	1.2ub	60	16	5.0p	A	TO5	A
24	2N1443	400m	1.0M	2.3m	§A	50		50	100m	.02u	6.0	1.0mØ	65	35u	1.0k		5.0p	A	TO5	A
25	2N3977Ø	400m	1.0M§Δ	2.3m	§S	15	10	15	100m	1.0n	.50Ø	5.0mØ	40 †Δ				14pØ		TO46	AØ
26	2N3978Ø	400m	1.0M§Δ	2.3m	§S	25	20	25	100m	1.0n	.50Ø	5.0mØ	30 †Δ				14pØ		TO46	AØ
27	2N3979Ø	400m	1.0M§Δ	2.3m	§S	40	35	40	100m	1.0n	.50Ø	5.0mØ	20 †Δ				14pØ		TO46	AØ
28	NS661	400m	1.0M§Δ	2.3m	§J	30	15	30		1.0uØ	6.0Ø	1.0m	50 Δ					DE	TO5	A
29	NS662	400m	1.0M§Δ	2.3m	§J	40	35	35		1.0uØ	6.0Ø	1.0m	50 Δ					DE	TO5	A
30	NS663	400m	1.0M§Δ	2.3m	§J	50	35	35		1.0uØ	6.0Ø	1.0m	50 Δ					DE	TO5	A
31	NS664	400m	1.0M§Δ	2.3m	§J	50	50	50		1.0uØ	6.0Ø	1.0m	50 Δ					DE	TO5	A
32	2N1228	400m	1.2M	2.9m	§J	15	15	15		100nØ	2.0Ø	10mØ	14 †	1.2ub	30	15	95p	A	TO5	A
33	2N1229	400m	1.2M	2.9m	§J	15	15	15		100nØ	2.0Ø	10mØ	30 †	1.2ub	30	15	95p	A	TO5	A
34	2N1230	400m	1.2M	2.9m	§J	35	35	35		100n	2.0Ø	10mØ	14 †	1.2ub	30	8.0	95p	A	TO5	A
35	2N1231	400m	1.2M	2.9m	§J	35	35	35		100nØ	2.0Ø	10mØ	30 †	1.2ub	30	8.0	95p	A	TO5	A
36	2N327B	400m	2.0MΔ	2.3m	§J	50	40	20	100m	1nØ	.50Ø	.10mΔ	14	10u	1.0k		9.0p	PEΔ	TO5	A
37	2N1026A	400m	2.0MΔ	500uØ	§J	35	35		100m	.02u			36				7.0p	E	TO5	
38	2N3064	400m	2.0M	2.3m	§J	110	100	50	100m	.01uØ	6.0Ø	1.0mØ	15 †Δ				10pØ	E	TO46	A
39	2N328B	400m	3.0MΔ	2.3m	§J	50	35	20	100m	1nØ	.50Ø	.10mΔ	28	12u	1.7k		9.0p	PEΔ	TO5	A
40	2N3062	400m	3.0M	2.3m	§J	90	80	40	100m	.01uØ	6.0Ø	1.0mØ	20 †Δ				10pØ	E	TO46	A
41	2N3219Ø	400m	3.0M§	2.3m	§J	40	35	40	100m	1.0n	6.0Ø	1.0mØ	1.0 Δ				14pØ	E	TO46	A
42	2N4982Ø	400m	3.0M§Δ	2.2m	§S	70		70	100m	5.0n	.50Ø	1.0mØ	30 †Δ				10pØ	Δ	TO46	AØ
43	2N3065	400m	4.0M	2.3m	§J	110	100	50	100m	.01uØ	6.0Ø	1.0mØ	30 †Δ				10pØ	E	TO46	A
44	2N3913Ø	400m	4.0M§Δ	2.3m	§S	60	50	50	200m	.5nØ	.50Ø	1.0mØ	40 †Δ				8pØ	Δ	TO18	A
45	2N329B	400m	5.0MΔ	2.3m	§J	50	30	20	100m	1nØ	.50Ø	.10mΔ	60	15u	3.0k		9.0p	PEΔ	TO5	A
46	2N2946Ø	400m	5.0M§Δ	4.3m	§J	40	35	40	100m	.50n	.50Ø	1.0mØ	70 †				10pØ	E	TO46	A
47	2N2946AØ	400m	5.0M§Δ	2.3m	§S	40	35	40	100m	5.0u	.50Ø	1.0mØ	50 †Δ				10pØ	Δ	TO46	AØ
48	JAN2N2946AØ	400m	5.0M§Δ	2.2m	§S	40	35	40	100m	500p	.50Ø	1.0mØ	50 †Δ				10pØ	Δ	TO46	AØ
49	2N3060	400m	5.0M	2.3m	§J	70	60	30	100m	5nØ	6.0Ø	1.0mØ	30 †Δ				10pØ	E	TO46	A
50	2N3063	400m	5.0M	2.3m	§J	90	80	40	100m	.01uØ	6.0Ø	1.0mØ	50 †Δ				10pØ	E	TO46	A
51	2N3218Ø	400m	5.0M§	2.3m	§J	25	20	25	100m	1.0n	6.0Ø	1.0mØ	1.0 Δ				14pØ	E	TO46	A
52	2N3527	400m	5.0M§Δ	2.3m	§J	30	30	10	100m	.1nØ	6.0Ø	.1uØ	40 †				10pØ	E	TO46	AØ
53	2N3677Ø	400m	5.0M§Δ	2.3m	§S	30	20	30	100m	1.0n	6.0Ø	1.0m	4.0 Δ§				10pØ		TO46	AØ
54	2N4981Ø	400m	5.0M§Δ	2.2m	§S	50		50	100m	3.0n	.50Ø	1.0mØ	40 †Δ				10pØ	Δ	TO46	AØ
55	C9080	400m	5.0M	2.3m	§J	30	30	5.0	100m	.01uØ	6.0Ø	1.0m	85				10pØ	E	TO5	A
56	C9082	400m	5.0M	2.3m	§J	30	30	5.0	100m	.01uØ	6.0Ø	1.0m	85				10pØ	E	TO18	A
57	C9084	400m	5.0M	2.3m	§J	30	30	5.0	100m	.01uØ	6.0Ø	1.0m	85				10pØ	E	R135	A
58	2N3840Ø	400m	6.0M§Δ	2.3m	§S	50	50	50	100m	.5nØ	.50Ø	1.0mØ	50 †Δ				9pØ		TO46	A
59	2N3061	400m	8.0M	2.3m	§J	70	60	30	100m	5nØ	6.0Ø	1.0mØ	60 †Δ				10pØ	E	TO46	A
60	2N3914Ø	400m	8.0M§Δ	2.3m	§S	60	40	40	200m	.5nØ	.50Ø	1.0mØ	60 †Δ				8pØ		TO18	A
61	C9081	400m	8.0M	2.3m	§J	30	30	5.0	100m	.01uØ	6.0Ø	1.0m	155				10pØ	E	TO5	A
62	C9083	400m	8.0M	2.3m	§J	30	30	5.0	100m	.01uØ	6.0Ø	1.0m	155				10pØ	E	TO18	A
63	C9085	400m	8.0M	2.3m	§J	30	30	5.0	100m	.01uØ	6.0Ø	1.0m	155				10pØ	E	R135	A
64	2N2945Ø	400m	10M§Δ	4.3m	§J	25	20	25	100m	.20n	.50Ø	1.0mØ	100 †				10pØ	E	TO46	A
65	2N2945AØ	400m	10M§Δ	2.3m	§S	25	20	25	100m	2.0u	.50Ø	1.0mØ	70 †Δ				10pØ	Δ	TO46	AØ
66	JAN2N2945AØ	400m	10M§Δ	2.2m	§S	25	20	25	100m	200p	.50Ø	1.0mØ	70 †Δ				10pØ	Δ	TO46	AØ
67	2N3058	400m	10.M	2.3m	§S	6.0	6.0	6.0	100m	.10n	.50Ø	.1uØ	40 Δ				10pØ	EØ	TO46	A
68	2N3059	400m	10.M	2.3m	§S	10	10	10	100m	.10n	3.0Ø	.01mØ	100 Δ				10pØ	EØ	TO46	A
69	2N3217Ø	400m	10.M§	2.3m	§J	15	10	15	100m	1.0n	6.0Ø	1.0mØ	1.0 Δ				14pØ	E	TO46	A
70	2N4980Ø	400m	10M§Δ	2.2m	§S	30		30	100m	1.0n	.50Ø	1.0mØ	60 †Δ				10pØ	Δ	TO46	AØ
71	2N2944Ø	400m	15M§Δ	4.3m	§J	15	10	15	100m	.10n	.50Ø	1.0mØ	200 †				10pØ	E	TO46	A
72	2N2944AØ	400m	15M§Δ	2.3m	§S	15	10	15	100m	1.0u	.50Ø	1.0mØ	100 †Δ				10pØ	Δ	TO46	AØ
73	2N3915Ø	400m	15M§Δ	2.3m	§S	60	30	30	200m	.5nØ	.50Ø	1.0mØ	90 †Δ				8pØ	Δ	TO18	A
74	2N4007†	400m	15M§Δ	2.3m	§S	20	15	20	100m	.30n	6.0Ø	1.0m	30 §Δ				10p$Ø		TO46	AØ
75	2N4008†	400m	15M§Δ	2.3m	§S	35	30	35	100m	.3nØ	6.0Ø	1.0m	20 §Δ				10p$Ø		TO46	AØ
76#	BCY90B	400m	15.M§	3.3m	§J	40	40	20	50m	2nØ	6.0Ø	1.0mØ	25				4p$	PEØ	TO5	AØ
77#	BCY91B	400m	15.M§	3.3m	§J	40	40	20	50m	2nØ	6.0Ø	1.0mØ	42				4p$	PEØ	TO5	AØ
78#	BCY92B†	400m	15.M§	3.3m	§J	40	40	20	50m	2nØ	6.0Ø	1.0mØ	70				4p$	PEØ	TO5	AØ
79#	BCY93B	400m	15.M§	3.3m	§J	70	70	30	50m	2nØ	6.0Ø	1.0mØ	25				4p$	PEØ	TO5	AØ
80#	BCY94B	400m	15.M§	3.3m	§J	70	70	30	50m	2nØ	6.0Ø	1.0mØ	42				4p$	PEØ	TO5	AØ
81#	BCY95B†	400m	15.M§	3.3m	§J	70	70	30	50m	2nØ	6.0Ø	1.0mØ	70				4p$	PEØ	TO5	AØ
82#	BCY96B	400m	15.M§	3.3m	§J	90	90	30	50m	2nØ	6.0Ø	1.0mØ	25				4p$	PEØ	TO5	AØ
83#	BCY97B	400m	15.M§	3.3m	§J	90	90	30	50m	2nØ	6.0Ø	1.0mØ	42				4p$	PEØ	TO5	AØ
84#	BCY98B†	400m	15.M§	3.3m	§J	40	40	20	50m	2nØ	6.0Ø	1.0mØ	125				4p$	PEØ	TO5	AØ
85#	TCH99B†	400m	15.M§	3.3m	§J	70	70	30	50m	2nØ	6.0Ø	1.0mØ	125				4p$	PEØ	TO5	AØ
86	2N4006†	400m	20M§Δ	2.3m	§S	10	6.0	10	100m	.10n	6.0Ø	1.0m	40 §Δ				10p$Ø		TO46	AØ
87	2N4413	400m	20M§Δ	2.3m	§S	40	30	5.0	600m	10nØ	5.0Ø	1.0mØ	120 Δ	500nb	32 Ø		10pØ	Ø	TO18	AØ
88	2N4413A	400m	20M§Δ	2.3m	§S	60	60	5.0	600m	10nØ	5.0Ø	1.0mØ	120 Δ	500nb	32 Ø		10pØ	Ø	TO18	Ø
89	2N4415	400m	20M§Δ	2.3m	§S	40	30	5.0	600m	10nØ	5.0Ø	1.0mØ	100 Δ	500nb	32 Ø		10pØ	Ø	TO18	AØ
90	2N4415A	400m	20M§Δ	2.3m	§S	60	60	5.0	600m	10nØ	5.0Ø	1.0mØ	100 Δ	500nb	32 Ø		10pØ	Ø	TO18	A
91	ST8035	400m	30M§Δ			40	40 §	2.0		1.0u	5.0Ø	1.0mØ	30				45p	PL	TO18	
92	2N2599A	400m	40M§Δ	2.3m	§S	125	100	7.0	50m	.02uØ	5.0Ø	5.0mØ	75 †		1.5kØ		6pØ	P-P L	TO46	AØ
93	2N3930	400m	40M§Δ	2.3m	§J	180	180	6.0	100m	10nØ	10Ø	1.0mØ	80 Δ	25uØ	12kØ		7pØ	Ø	TO18	AØ
94	2N4017*	400m	40M§Δ	2.2m	§J	45	45	6.0	200m	10nØ	5.0Ø	1.0mØ	250 Δ	50uØ	20kØ	10 Ø	6.0pØ	Ø	L17x	
95	2N4018*	400m	40M§Δ	2.2m	§J	80	80	6.0	200m	10nØ	5.0Ø	1.0mØ	100 Δ	40uØ	17kØ	10 Ø	6.0pØ	Ø	L17x	
96	2N4019*	400m	40M§Δ	2.2m	§J	60	60	6.0	200m	10nØ	5.0Ø	1.0mØ	100 Δ	50uØ	20kØ	10 Ø	6.0pØ	Ø	L17x	
97	2N4021*	400m	40M§Δ	2.3m	§J	60	60	6.0	200m	.01uØ	5.0Ø	1.0mØ	100 Δ	40uØ	17kØ	10 Ø	6pØ	Ø*	L17k	
98	2N4024*	400m	40M§Δ	2.3m	§J	60	60	6.0	200m	.01uØ	5.0Ø	1.0mØ	100 Δ	40uØ	17kØ	10 Ø	6pØ	Ø*	L17k	
99	2N4357	400m	40M§Δ	2.3m	§J	240	240	6.0	100m	.02uØ	10Ø	1.0mØ	100 Δ	25uØ	12kØ		7pØ	Ø	TO18	AØ
100	ST8036	400m	40M§Δ			40	40 §	2.0		1.0u	5.0Ø	1.0mØ	60				45p	PL	TO18	
101	ST61000Ø	400m	40M§Δ	4.3m		40	35	40	100m	.20n	6.0Ø	1.0mØ	100 †Δ				7pØ	PE	TO46	AØ
102	2N2605A	400m	45M	2.2m	§S	60	45	6.0	30m	2.0nØ	5.0Ø	10mØ	600 †Ø	1.0uØb	35 Ø	10 Ø	6.0p	Ø	TO46	Ø
103	2N3547	400m	45M§Δ	2.2m	§S	60	60	6.0	100m	25nØ	5.0Ø	1.0mØ	100 †Δ	1.0uØb	35 Ø	10 Ø	8.0pØ	PLØ	TO18	AØ
104	2N721	400m	50M§Δ	2.7m	§J	50	35	5.0		1.0uØ	5.0Ø	1.0mØ	15 Δ	1.0uØb	35 Ø	8.0 Ø	45pØ		TO18	AØ
105	2N721A	400m	50M§Δ	2.2m	§J	50	35	5.0		100nØ	10Ø	5.0mØ	15 †Δ	5.0uØb	10 Ø	8.0 Ø	40pØ	PL	TO18	AØ
106	2N2601	400m	50M§	4.3m	§J	60	60	6.0		25nØ	5.0Ø	1.0mØ	18 Δ	1.0ub	30	10	4.0p	PL	TO46	AØ
107	2N2602	400m	50M§	4.3m	§J	60	60	6.0		25nØ	5.0Ø	1.0mØ	36 Δ	1.0ub	30	10	4.0p	PL	TO46	AØ
108	2N2603	400m	50M§	4.3m	§J	60	60	6.0		25nØ	5.0Ø	1.0mØ	76 Δ	1.0ub	30	10	4.0p	PL	TO46	AØ
109	2N3341†	400m	50M§Δ	2.7m	§A	30	20	5.0	30m	.01uØ	1.0Ø	.01mØ	40 †Δ				6pØ		TO46	AØ
110	2N4020*	400m	50M§Δ	2.3m	§J	45	45	6.0	200m	.01uØ	5.0Ø	1.0mØ	250 Δ	50uØ	20kØ	10 Ø	6pØ	Ø*	L17k	

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 DERATE IN FREE AIR W/°C	fab (Hz)	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N4022*	400m	50M§Δ	2.3m	§J	60	60	6.0	200m	.01uØ	5.0Ø	1.0mØ	250 Δ	50uØ	20kØ	10 Ø	6pØ	Ø*	L17k	
2	2N4023*	400m	50M§Δ	2.3m	§J	45	45	6.0	200m	.01uØ	5.0Ø	1.0mØ	250 Δ	50uØ	20kØ	10 Ø	6pØ	Ø*	L17k	
3	2N4025*	400m	50M§Δ	2.3m	§J	60	60	6.0	200m	.01uØ	5.0Ø	1.0mØ	250 Δ	50uØ	20kØ	10 Ø	6pØ	Ø*	L17k	
4	2N722	400m	60M§Δ	2.6m	§J	50	35	5.0		1.0uØ	5.0Ø	1.0mØ	25 Δ	1.0uØb	35 Ø	8.0 Ø	45pØ		TO18	AØ
5♦	2N2303/46	400m	60M§Δ	23m	§J	50	35	5.0	600	1.0uØ	5.0Ø	1.0	75 Δ	1.0 Øb	35 Ø	8.0 Ø	20pØ	PE	TO46	AØ
6	2N2600A	400m	60M§Δ	2.3m	§S	125	100	7.0	50m	.02uØ	5.0Ø	5.0mØ	150 †		1.8kØ		6pØ	P-P L	TO46	AØ
7	2N3548	400m	60M§Δ	2.2m	§S	60	45	6.0	100m	10nØ	5.0	10uØ	100 †Δ	1.0uØb	35 Ø	10 Ø	8.0pØ	PLØ	TO18	AØ
8	2N3549	400m	60M§Δ	2.2m	§S	60	60	6.0	100m	10nØ	5.0	10uØ	100 †Δ	1.0uØb	35 Ø	10 Ø	8.0pØ	PLØ	TO18	AØ
9	2N3550	400m	60M§Δ	2.2m	§S	60	45	10	100m	1.0nØ	5.0	10uØ	200 †Δ	1.0uØb	35 Ø	10 Ø	8.0pØ	PLØ	TO18	Ø
10	2N3726*	400m	60M§Δ	2.3m	§J	45	45	5.0	300m	.01uØ	10Ø	1.0mØ	135 Δ	80uØ	11.k	15 Ø	8pØ	Ø*	L17k	
11	2N3727*	400m	60M§Δ	2.3m	§J	45	45	5.0	300m	.01uØ	10Ø	1.0mØ	135 Δ	80uØ	11.k	15 Ø	8pØ	Ø*	L17k	
12#	BFW43	400m	60.M§	2.3m	§J	150	150	6.0		.01uØ	10Ø	10mØ	40 †#Δ				7pØ	PE	TO18	AØ
13#	BFX90	400m	60.M§	2.3m	§J	180	180	6.0		.01uØ	10Ø	1.0mØ	170 †#				5.0p	PE	TO18	AØ
14	2N2595	400m	80.M§	4.3m	§J	80	60	6.0		25nØ	5.0Ø	5.0mØ	20 Δ		1.2k		4.0p	PL	TO46	A
15	2N2596	400m	80.M§	4.3m	§J	80	60	6.0		25nØ	5.0Ø	5.0mØ	40 Δ		1.5k		4.0p	PL	TO46	A
16	2N2597	400m	80.M§	4.3m	§J	80	60	6.0		25nØ	5.0Ø	5.0mØ	80 Δ		1.8k		4.0p	PL	TO46	A
17	2N2598	400m	80.M§	4.3m	§J	125	80	7.0		25nØ	5.0Ø	5.0mØ	20 Δ		1.2k		4.0p	PL	TO46	A
18	2N2599	400m	80.M§	4.3m	§J	125	80	7.0		25nØ	5.0Ø	5.0mØ	40 Δ		1.5k		4.0p	PL	TO46	AØ
19	2N2600	400m	80.M§	4.3m	§J	125	80	7.0		25nØ	5.0Ø	5.0mØ	80 Δ		1.8k		4.0p	PL	TO46	AØ
20	2N3579	400m	80M§Δ	2.2m	§S	60	60	6.0	30m	50nØ	5.0Ø	1.0mØ	120 †	1.0uØb	35	10	6.0pØ	Ø	TO46	AØ
21	2N3580	400m	80M§Δ	2.2m	§S	60	60	6.0	30m	50nØ	5.0Ø	1.0mØ	240 †	1.0uØb	35	10	6.0pØ	Ø	TO46	AØ
22	2N722A	400m	96MΔ	2.6m	§J	50	35	5.0		100nØ	10Ø	150mØ	30 †#Δ	1.0uØb	35 Ø	8.0 Ø	40pØ	PL	TO46	AØ
23	2N1131/46	400m	96MΔ	2.3m	§J	50	35	5.0	600m	1.0uØ	10Ø	150mØ	20 †				20p	PE	TO46	
24	2N1132/46	400m	96MΔ	2.3m	§J	50	35	5.0	600m	1.0uØ	10Ø	150mØ	30 †				20p	PE	TO46	
25	2N1132A46	400m	96MΔ	2.3m	§J	60	40	5.0	600m	1.0uØ	10Ø	150mØ	30 †				20p	PE	TO46	
26	2N1132B46	400m	96MΔ	2.3m	§J	70	50	6.0	600m	1.0uØ	10Ø	150mØ	30 †				20p	PE	TO46	
27	2N2590	400m	100M§	4.3m	§J	100	60	7.0		25nØ	5.0Ø	5.0mØ	40 Δ	35u	450		5pØ	PL	TO46	AØ
28	2N2591	400m	100M§	4.3m	§J	100	60	7.0		25nØ	5.0Ø	5.0mØ	70 Δ	55u	700		5pØ	PL	TO46	AØ
29	2N2592	400m	100M§	4.3m	§J	100	60	7.0		25nØ	5.0Ø	5.0mØ	115 Δ	80u	1.0k		5pØ	PL	TO46	AØ
30	2N2593	400m	100M§	4.3m	§J	100	60	7.0		25nØ	5.0Ø	5.0mØ	160 Δ	105u	1.4k		5pØ	PL	TO46	AØ
31	2N2604	400m	100M§	4.3m	§J	60	45	6.0		10nØ	5.0Ø	1.0mØ	60 Δ	1.0ub	30	10	4.0p	PLØ	TO46	AØ
32	2N2605	400m	100M§	4.3m	§J	60	45	6.0		10nØ	5.0Ø	1.0mØ	150 Δ	1.0ub	30	10	4.0p	PLØ	TO46	AØ
33	2N5117*	400m	100M§Δ	2.3m	§S	45	45	7.0	10m	100pØ	5.0Ø	10uØ	100 †Δ				800f$Ø	Ø	L17c	
34	2N5118*	400m	100M§Δ	2.3m	§S	45	45	7.0	10m	100pØ	5.0Ø	10uØ	100 †Δ				800f$Ø	Ø	L17c	
35	2N5119*	400m	100M§Δ	2.3m	§S	45	45	7.0	10m	100pØ	5.0Ø	10uØ	50 †Δ				800f$Ø	Ø	L17c	
36	2N5123*	400m	100M§Δ	2.3m	§S	45	45	7.0	10m	100pØ	5.0Ø	10uØ	100 †Δ				800f$Ø	Ø	L17w	
37	2N5124*	400m	100M§Δ	2.3m	§S	45	45	7.0	10m	100pØ	5.0Ø	10uØ	100 †Δ				800f$Ø	Ø	L17w	
38	2N5125*	400m	100M§Δ	2.3m	§S	45	45	7.0	10m	100pØ	5.0Ø	10uØ	50 †Δ				800f$Ø	Ø	L17w	
39♦#	AT390	400m	100MΔ§	2.3m	§J	40	40	5.0	1.0	200nØ	1.0Ø	50mØ	40 †Δ				20pØ	PE	TO18	AØ
40▼#	AT391	400m	100MΔ§	2.3m	§J	60	60	5.0	1.0	200n	1.0Ø	50mØ	40 Δ				20pØ	PE	TO18	AØ
41▼#	AT392	400m	100MΔ§	2.3m	§J	80	80	5.0	1.0	200n	1.0Ø	50mØ	40 Δ				20pØ	PE	TO18	AØ
42▼#	AT393	400m	100MΔ§	2.3m	§J	40	40	5.0	1.0	200n	1.0Ø	50mØ	100 Δ				20pØ	PE	TO18	AØ
43▼#	AT394	400m	100MΔ§	2.3m	§J	60	60	5.0	1.0	200n	1.0Ø	50mØ	100 Δ				20pØ	PE	TO18	AØ
44▼#	AT395	400m	100MΔ§	2.3m	§J	80	80	5.0	1.0	200n	1.0Ø	50mØ	100 Δ				20pØ	PE	TO18	AØ
45▼#	AT396	400m	100MΔ§	2.3m	§J	40	40	5.0	1.0	200n	1.0Ø	50mØ	40 Δ				20pØ	PE	TO18	AØ
46▼#	AT397	400m	100MΔ§	2.3m	§J	60	60	5.0	1.0	200n	1.0Ø	50mØ	40 Δ				20pØ	PE	TO18	AØ
47▼#	AT398	400m	100MΔ§	2.3m	§J	80	80	5.0	1.0	200n	1.0Ø	50mØ	40 Δ				20pØ	PE	TO18	AØ
48#	BC192	400m	100M§Δ	2.2m	§J	25	25	5.0	500m	100nØ	5.0Ø	50mØ	60 †Δ				12p	PE	TO18	AØ
49#	NKT20339	400m	100M§	2.3m	§J	45	40	5.0	500m	.01uØ	10Ø	.10mØ	20 †Δ				6.0p		TO18	AØ
50	TQ54	400m	100M§Δ	2.2m	§J	75	45	5.0	600m	10nØ	5.0Ø	1.0mØ	55	900nb	27	1.2	10pØ	PE	TO18	A
51	TQ54A	400m	100M§Δ	2.2m	§J	80	75	5.0	600m	10nØ	5.0Ø	1.0mØ	55	900nb	27	1.2	10pØ	PE	TO18	A
52	TQ60†	400m	100M§Δ	2.2m	§J	40	30	5.0	600m	20nØ	5.0Ø	1.0mØ	30 Δ	500nØb	35 Ø		10pØ	PE	TO18	A
53	TQ60A†	400m	100M§Δ	2.2m	§J	60	60	5.0	600m	20nØ	5.0Ø	1.0mØ	30 Δ	500nØb	35 Ø		10pØ	PE	TO18	A
54	TQ62†	400m	100M§Δ	2.2m	§J	40	30	5.0	600m	20nØ	5.0Ø	1.0mØ	30 Δ	500nØb	35 Ø		10pØ	PE	TO8	A
55	TQ62A†	400m	100M§Δ	2.2m	§J	60	60	5.0	600m	20nØ	5.0Ø	1.0mØ	30 Δ	500nØb	35 Ø		10pØ	PE	TO18	A
56	TQ64†	400m	100M§Δ	2.2m	§J	20	20	5.0	600m	100nØ	5.0Ø	1.0mØ	20 Δ	500nØb	35 Ø		10pØ	PE	TO18	A
57	TQ64A†	400m	100M§Δ	2.2m	§J	30	30	5.0	600m	100nØ	5.0Ø	1.0mØ	3Ξ	500nØb	35 Ø		10pØ	PE	TO18	A
58♦	2N2800/46	400m	120M§Δ	23m	§J	50	35	5.0	800	100n#	10Ø	100mØ	20 Δ				25pØ	PE	TO46	AØ
59♦	2N2801/46	400m	120M§Δ	23m	§J	50	35	5.0	800	100n#	10Ø	100mØ	30 Δ				25pØ	PE	TO46	AØ
60♦	2N3081/46	400m	150M§Δ	23m	§J	70	50	6.0	600	10nØ	10Ø	150 Ø	30 †Δ				13pØ	PE	TO46	AØ
61	2N3497†	400m	150M§Δ	2.3m	§S	120	120	4.5	100m	.10uØ	10Ø	10mØ	40 Δ	300uØ	1.2kØ	2 Ø	6pØ		TO18	AØ
62	2N5146†	400m	150M§Δ	2.3m	§J	40	40	5.0	15	10u#	2.0Ø	1 Ø	20 †Δ				20p$		L56	
63#	BC215A	400m	150M§Δ	2.3m	§J	50	30	5.0	600m	.10uØ	10Ø	150mØ	40 †Δ				8pØ	PE	TO18	A
64#	BC215B	400m	150M§Δ	2.3m	§J	50	30	5.0	600m	.10uØ	10Ø	150mØ	100 †Δ				8pØ	PE	TO18	A
65	ST8229	400m	150M§Δ	2.2m	§J	50	30	5.0	1.0	50nØ	10Ø	150mØ	40 †Δ				11pØ	PE	TO18	Ø
66	2N2906†	400m	200M§Δ	2.3m	§S	60	40	5.0	600m	.02uØ	10Ø	1.0mØ	25 †Δ				8pØ		TO18	AØ
67	JAN2N2906†	400m	200M§Δ	2.2m	§S	60	40	5.0	600m	20nØ	10Ø	1.0mØ	25 Δ				8.0pØ		TO18	AØ
68	2N2906A†	400m	200M§Δ	2.3m	§S	60	60	5.0	600m	.01uØ	10Ø	1.0mØ	40 †Δ				8pØ		TO18	AØ
69	JAN2N2906A†	400m	200M§Δ	2.2m	§S	60	60	5.0	600m	10nØ	10Ø	1.0mØ	40 Δ				8.0pØ		TO18	AØ
70	2N2907†	400m	200M§Δ	2.3m	§S	60	40	5.0	600m	.02uØ	10Ø	1.0mØ	30 †Δ				8pØ		TO18	AØ
71	JAN2N2907†	400m	200M§Δ	2.2m	§S	60	40	5.0	600m	20nØ	10Ø	1.0mØ	50 Δ				8.0pØ		TO18	AØ
72	2N2907A†	400m	200M§Δ	2.3m	§S	60	60	5.0	600m	.01uØ	10Ø	1.0mØ	100 †Δ				8pØ		TO18	AØ
73	JAN2N2907A†	400m	200M§Δ	2.2m	§S	60	60	5.0	600m	10nØ	10Ø	1.0mØ	100 Δ				8.0pØ		TO18	AØ
74	2N3135†	400m	200M§Δ	2.3m	§S	50	35	4.0	600m	.05uØ	10Ø	150mØ	40 †#Δ				10pØ		TO18	AØ
75	2N3136†	400m	200M§Δ	2.3m	§S	50	35	4.0	600m	.05uØ	10Ø	150mØ	100 †#Δ				10pØ		TO18	AØ
76	2N3485A†	400m	200M§	2.3m	§S	60	60	5.0	600m	.01uØ	10Ø	10mØ	40 †Δ				8pØ	EA	TO46	AØ
77	JAN2N3485A†	400m	200M§Δ	2.2m	§S	60	60	5.0	600m	10nØ	10Ø	1.0mØ	40 Δ				8.0pØ		TO46	AØ
78	2N3486A†	400m	200M§	2.3m	§S	60	60	5.0	600m	.01uØ	10Ø	10m	100 †Δ				8pØ	EA	TO46	AØ
79	JAN2N3486A†	400m	200M§Δ	2.2m	§S	60	60	5.0	600m	10nØ	10Ø	1.0mØ	100 Δ				8.0pØ		TO46	AØ
80	2N3496†	400m	200M§Δ	2.3m	§S	80	80	4.5	100m	.10uØ	10Ø	10mØ	40 Δ	300uØ	1.2kØ	2 Ø	7pØ		TO18	AØ
81	2N3504†	400m	200M§Δ	4.0m	§J	45	45	5.0	600m	.01u§	10Ø	10mØ	35 Δ	800uØ	23kØ	15 Ø	8pØ	Ø	TO18	AØ
82	2N3505†	400m	200M§Δ	4.0m	§J	60	60	5.0	600m	.01u§	10Ø	10mØ	35 Δ	800uØ	23kØ	15 Ø	8pØ	Ø	TO18	AØ
83	2N3672†	400m	200M§Δ	2.3m	§S	60	50	5.0	600m	10nØ	10Ø	.10mØ	55 †Δ				9pØ		TO18	AØ
84	2N4015*	400m	200M§Δ	2.3m	§J	60	60	5.0	300m	.01uØ	10Ø	1.0mØ	135 Δ	80uØ	12kØ	15 Ø	8pØ	Ø*	L17k	
85	2N4016*	400m	200M§Δ	2.3m	§J	60	60	5.0	300m	.01uØ	10Ø	1.0mØ	135 Δ	80uØ	12kØ	15 Ø	8pØ	Ø*	L17k	
86#	BFX35	400m	200M§Δ	2.3m	§J	40	40	5.0		.03u	10Ø	1.0mØ	200 †				6.0p	PE	TO18	
87#	BSW24†	400m	200M§Δ	2.3m	§J						10Ø	150mØ	40 #Δ					PE	TO18	
88#	BSW72	400m	200M§	2.2m	§J	40	25	5.0	500m	100nØ	10Ø	10mØ	40 †Δ#				8.0pØ	PE	TO18	AØ
89#	BSW73	400m	200M§	2.2m	§J	40	25	5.0	500m	100nØ	10Ø	10mØ	100 †Δ#				8.0pØ	PE	TO18	AØ
90#	BSW74	400m	200M§	2.2m	§J	75	40	5.0	500m	10nØ	10Ø	10mØ	40 †Δ#				8.0pØ	PE	TO18	AØ
91#	BSW75	400m	200M§	2.2m	§J	75	40	5.0	500m	10nØ	10Ø	10mØ	100 †Δ#				8.0pØ	PE	TO18	AØ
92▼	MD1T2907†	400m	200M§		§A	60	40	5.0	200m	20nØ	20Ø	50mØ	2.0 Δ				8.0pØ		TO122	P
93#	TM2614	400m	200M§Δ	1.4m	§A	60	50 §	5.0	600m	.05uØ	10Ø	150mØ	40 †#				8pØ	PE	TO18	A
94#	TM2712	400m	200M§Δ	1.4m	§A	60	40 §	5.0	600m	.05uØ	10Ø	150mØ	100 †#				8pØ	PE	TO18	
95#	BF249	400m	250M§	2.7m	§A	30	25	3.0	600m		10	10m	30 †Δ				6.0p	PE	TO18	AØ
96#	BFV95†	400m	250M§Δ	2.6m	§J	50	30	5.0	800m	.05uØ	10Ø	150mØ	80 †Δ*				5.0p	PE	L56d	
97#	BFV95N†	400m	250M§Δ	2.6m	§J	50	30	5.0	800m	.05uØ	10Ø	150mØ	80 †Δ*				5.0p	PE	L56e	
98#	BFV91†	400m	400M§Δ	2.6m	§J	12	12	4.0	200m	30uØ	.50Ø	30mØ	30 †Δ*				6pØ	PE	L56d	
99#	BFV91N†	400m	400M§Δ	2.6m	§J	12	12	4.0	200m	30uØ	.50Ø	30mØ	30 †Δ*				6pØ	PE	L56e	
100#	2CY38	410m	1.5M§	3.3m	§A	32	32	12	500m	20u	6.0Ø	10mØ	15 Δ					A	TO5	
101#	2CY39	410m	1.5M§	3.3m	§A	64	64	12	500m	20u	6.0Ø	10mØ	15 Δ					A	TO5	
102#	BCY38	410m	1.5M§	3.3m	§J	32	32	12	150m	.10uØ	6.0Ø	10mØ	27					A	TO5	A
103#	BCY39	410m	1.5M§	3.3m	§J	64	64	12	150m	.10uØ	6.0Ø	10mØ	35					A	TO5	A
104#	BCY54	410m	2.0M§	3.3m	§J	50	50	12	300m	.10uØ	6.0Ø	10mØ	50					A	TO5	A
105#	BCY40	410m	2.5M§	3.3m	§J	32	32	12	300m	.10uØ	6.0Ø	10mØ	50					A	TO5	A
106	2N1256†	450m	30M§Δ	3.0m	§S	40	40	5.0	100m	200nØ	1.0Ø	10mØ	25 †Δ				10pØ		TO5	Ø
107	2N2154†	450m	30M§Δ	3.0m	§S	30	30	5.0	100m	200nØ	1.0Ø	10mØ	25 †Δ				10pØ		TO5	Ø
108	2N1259†	450m	40M§Δ	3.0m	§S	50	50	5.0	100m	200nØ	1.0Ø	10mØ	25 †Δ				10pØ		TO5	Ø
109	2N1255†	450m	50M§Δ	3.0m	§S	30	30	5.0	100m	.20uØ	1.0Ø	10mØ	40 †Δ				10pØ		TO5	A
110	2N1257†	450m	50M§Δ	3.0m	§S	40	40	5.0	100m	.20uØ	1.0Ø	10mØ	40 †Δ				10pØ		TO5	A

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N1258†	450m	50M§Δ	3.0m	§S	30	30	5.0	100m	.20uØ	1.0Ø	10mØ	75 †Δ				10pØ		TO5	A
2	2N2393	450m	50M§Δ	3.0m	§J	50	35	5.0	300m	1.0uØ	5.0Ø	1.0mØ	15 Δ	1.0uØb	35 Ø	8.0 Ø	45pØ	PL	u25	
3	2N2394	450m	60M§Δ	3.0m	§J	50	35	5.0	300m	1.0uØ	5.0Ø	1.0mØ	25 Δ	1.0uØb	35 Ø	8.0 Ø	45pØ	PL	u25	
4	2V435*	450m	170M§	2.6m	§J	25	25	4.5		.02uØ	10Ø	10mØ	130	130u	1.2k	2.6	20pØ	DPEØ	L17a	
5	FT3644†	450m	250M§	4.5m	♦J	45	45	5.0		.03u§	10Ø	.10mØ	170 †				4.5p$	DPE	R124 c	A
6	FT3645†	450m	250M§	4.5m	♦J	60	60	5.0		.03u§	10Ø	.10mØ	170 †				4.5p$	DPE	R124 c	A
7#	BFX30	500m		3.4m	§J	65	65	5.0	600m#	.07uØ	.40Ø	10mØ	50 †Δ				12pØ	PE	TO5	AØ
8	2N5110	500m	1.0M§Δ	33m	§J	40	40	10	1	75u	10Ø	100mØ	10 Δ				500p		TO5	AØ
9	2N5111	500m	1.0M§Δ	33m	§J	80	80	10	1	75u	10Ø	100mØ	10 Δ				500p		TO5	AØ
10	2N3910Ø	500m	4.0M§Δ	2.9m	§S	60	50	50	200m	.50nØ	.5Ø	1.0mØ	40 †Δ				8pØ		TO46	AØ
11	NS404	500m	5.0MΔ	3.7m	§J	40	35	25		.50uØ	.15Ø	12mØ	30 †Δ				10pØ	DE	TO5	
12	2N3911Ø	500m	8.0M§Δ	2.9m	§S	60	40	40	200m	.5nØ	.50Ø	1.0mØ	60 †Δ				8pØ		TO46	AØ
13	2N3912Ø	500m	10M§Δ	2.9m	§S	60	30	30	200m	.5nØ	.50Ø	1.0mØ	90 †Δ				8pØ		TO46	AØ
14▼	MM4052	500m	12M§Δ	2.8m	§J	30	30	30	500m	500pØ	1.0Ø	10mØ	20 Δ			Ø	10pØ		TO46	A
15	MPS6562	500m	60M§Δ	4.5m	†J	25	25	4.0	600m	.10uØ	1.0Ø	10mØ	35 †Δ				30pØ	ANt	TO92	A
16	MPS6563	500m	60M§Δ	4.5m	†J	20	20	4.0	600m	.10uØ	1.0Ø	10mØ	35 †Δ				30pØ	ANt	TO92	A
17▼	D29E8	500m	80M§Δ	4.5m	†J	70	60	5.0	750m	100n	2.0Ø	2.0mØ	40 †Δ				15p$Ø	PEt	TO98	B
18	2N3806*	500m	100M§Δ	2.9m	§S	60	60	5.0	50m	.01uØ	10Ø	1.0mØ	150 Δ	60uØ	30kØ	25 Ø	4pØ	Ø	L17k	
19	2N3807*	500m	100M§Δ	2.9m	§S	60	60	5.0	50m	.01uØ	10Ø	1.0mØ	300 Δ	60uØ	40kØ	25 Ø	4pØ	Ø	L17k	
20	2N3808*	500m	100M§Δ	2.9m	§S	60	60	5.0	50m	.01uØ	10Ø	1.0mØ	150 Δ	60uØ	30kØ	25 Ø	4pØ	Ø	L17k	
21	2N3809*	500m	100M§Δ	2.9m	§S	60	60	5.0	50m	.01uØ	10Ø	1.0mØ	300 Δ	60uØ	40kØ	25 Ø	4pØ	Ø	L17k	
22	2N3810*	500m	100M§Δ	2.9m	§S	60	60	5.0	50m	.01uØ	10Ø	1.0mØ	150 Δ	60uØ	30kØ	25 Ø	4pØ	Ø	L17k	
23	2N3810A*	500m	100M§Δ	2.9m	§S	60	60	5.0	50m	.01uØ	10Ø	1.0mØ	150 Δ	60uØ	30kØ	25 Ø	4pØ	*Ø	L17h	
24	2N3811*	500m	100M§Δ	2.9m	§S	60	60	5.0	50m	.01uØ	10Ø	1.0mØ	300 Δ	60uØ	40kØ	25 Ø	4pØ	Ø	L17k	
25	2N3811A*	500m	100M§Δ	2.9m	§S	60	60	5.0	50m	.01uØ	10Ø	1.0mØ	300 Δ	60uØ	40kØ	25 Ø	4pØ	*Ø	L17h	
26	2N4026†	500m	100M§Δ	2.9m	§J	60	60	5.0	1	.05uØ	5.0Ø	.10mØ	30 †Δ				20p$Ø		TO18	AØ
27	2N4027†	500m	100M§Δ	2.9m	§J	80	80	5.0	1	.05uØ	5.0Ø	.10mØ	30 †Δ				20p$Ø		TO18	AØ
28#	BFX29	500m	100M§Δ	3.4m	§J	60	60	5.0	600m#	.07uØ	10Ø	10mØ	50 †Δ				12pØ	PE	TO5	AØ
29▼	D29E1	500m	100MΔ§	4.5m	†J	35	25	5.0	750m	100n	2.0Ø	2.0mØ	60 †Δ				15pØ$	PEt	TO98	B
30▼	D29E4	500m	100M§Δ			50	40	5.0	750m	100n	2.0Ø	2.0mØ	60 †Δ				15p$Ø	PEt	TO98	B
31▼	D29E9	500m	100M§Δ	4.5m	†J	70	60	5.0	750m	100n	2.0Ø	2.0mØ	60 †Δ				15p$Ø	PEt	TO98	B
32▼	MPSA55	500m	100M§	4.5m	†J	50	50	4.0	500m	100n	1.0Ø	10mØ	50 †Δ				6.5p	AN	TO92	A
33▼	MPSA56	500m	100M§	4.5m	†J	80	80	4.0	500m	100n	1.0Ø	10mØ	50 †Δ				6.5p	AN	TO92	A
34	2N2837†	500m	120M§Δ	2.9m	§S	50	35	5.0	800m	.10u#	10Ø	.10mØ	20 Δ				25pØ		TO18	AØ
35	2N2838†	500m	120M§Δ	2.9m	§S	50	35	5.0	800m	.10u#	10Ø	.10mØ	30 Δ				25pØ		TO18	AØ
36▼	D29E5	500m	120M§Δ	4.5	†J	50	40	5.0	750m	100n	2.0Ø	2.0mØ	100 †Δ				15p$Ø	PEt	TO98	B
37▼	D29E10	500m	120M§	4.5m	†J	70	60	5.0	750m	100n	2.0Ø	2.0mØ	100 †Δ				15p$Ø	PEt	TO98	B
38#	BFX11*	500m	130M§Δ	2.2m	§J	45	45	4.5		10nØ	5.0Ø	1.0mØ	200 †				8.0pØ	DPEØ	L2d	
39▼	D29E2	500m	135M§Δ	4.5m	†J	35	25	5.0	750m	100n	2.0Ø	2.0mØ	150 †Δ				15pØ$	PEt	TO98	B
40▼	D29E6	500m	135M§Δ	4.5m	†J	50	40	5.0	750m	100n	2.0Ø	2.0mØ	150 †Δ				15p$Ø	PEt	TO98	B
41	2N3765†	500m	150M§Δ	2.9m	§S	60	60	5.0	1.5	.1u#Ø	1.0Ø	500mØ	35 †Δ				15pØ		TO46	AØ
42	JAN2N3765†	500m	150M§Δ	2.8m	§J	60	60 *	5.0	1.5	100nØ	1.0Ø	10mØ	35 †Δ				15pØ		TO46	AØ
43	2N4028†	500m	150M§Δ	2.9m	§J	60	60	5.0	1	.05uØ	5.0Ø	.10mØ	75 †Δ				20p$Ø		TO18	AØ
44	2N4029†	500m	150M§Δ	2.9m	§J	80	80	5.0	1	.05uØ	5.0Ø	.10mØ	75 †Δ				20p$Ø		TO18	AØ
45▼	D29E7	500m	150M§Δ	4.5m	†J	50	40	5.0	750m	100n	2.0Ø	2.0mØ	250 †Δ				15p$Ø	PEt	TO98	B
46	2N5242†	500m	170M§Δ	5.0m	♦S	20	20	5.0	500m	.10u§	1.0Ø	.50mØ	25 †Δ#				35p$Ø		TO105	A
47	2N5243†	500m	170M§Δ	5.0m	♦S	30	30	5.0	500m	.10u§	1.0Ø	.50mØ	25 †Δ#				35p$Ø		TO105	A
48	2N3764†	500m	180M§Δ	2.9m	§S	40	40	5.0	1.5	.1u#Ø	1.0Ø	500mØ	35 †Δ				15pØ		TO46	AØ
49#	BFW31†	500m	200M§	4.0m	§A	50	30 §	5.0	700m	500nØ	10Ø	10mØ	40 Δ	250uØ	4.0kØ	6.0 Ø	7.0p	PEØ	TO18	AØ
50	FT4354†	500m	200M§	5.0m	♦J	60	60	5.0		.05uØ	10Ø	10mØ	140	75u	800	1.8	15p$	DPLØ	TO105	A
51	FT4355†	500m	200M§	5.0m	♦J	60	60	5.0		.05uØ	10Ø	10mØ	140	75u	800	1.8	15p$	DPLØ	TO105	A
52	FT4356†	500m	200M§	5.0m	♦J	80	80	5.0		.05uØ	10Ø	10mØ	140	75u	800	1.8	15p$	DPLØ	TO105	A
53	FT5040†	500m	200M§	5.0m	♦J	25	25	4.0		.05uØ	5.0Ø	1.0mØ	78	17u	2.3k	4.5	15p$	PEØ	TO105	A
54	FT5041†	500m	200M§	5.0m	♦J	40	40	5.0		.05uØ	5.0Ø	1.0mØ	78	17u	2.3k	4.5	15p$	PEØ	TO105	A
55	MD2904*	500m	200M§Δ	2.9m	§J	60	40	5.0	600m	.02u#Ø	10Ø	150mØ	40 †#				8pØ	ANΔ	L17g	
56	MD2904A*	500m	200M§Δ	2.9m	§J	60	60	5.0	600m	.02u#Ø	10Ø	150mØ	40 †#				8pØ	ANΔ	L17g	
57	MD2905*	500m	200M§Δ	2.9m	§J	60	40	5.0	600m	.02u#Ø	10Ø	150mØ	100 †#				8pØ	ANΔ	L17g	
58	MD2905A*	500m	200M§Δ	2.9m	§J	60	60	5.0	600m	.02u#Ø	10Ø	150mØ	100 †#				8pØ	ANΔ	L17g	
59	MD3133*	500m	200M§Δ	2.9m	§J	50	35	4.0	600m	.05uØ	10Ø	150mØ	40 †#Δ				10pØ	ANΔ	L17c	
60	MD3134*	500m	200M§Δ	2.9m	§J	50	35	4.0	600m	.05uØ	10Ø	150mØ	100 †#Δ				10pØ	ANΔ	L17c	
61	MQ3467†	500m	250M§	2.9m	§J	40	40	5.0	1	.10uØ	1.0Ø	500mØ	40 †#				11p$	AN	L56	
62	MQ3762†	500m	250M§	2.9m	§J	40	40	5.0	1.5	.10uØ	2.0Ø	1 Ø	40 †#				11p$	AN	L56	
63	SE8540	500m	250M§	5.0m	♦J	30	30	5.0	1.0	50n	1.0Ø	150mØ	70 †#				20p$	DPL	R124c	A
64	2N4937*	500m	300M§Δ	2.9m	§S	50	40	5.0	50m	.02uØ	10Ø	1.0mØ	50 Δ	50uØ	10kØ	10 Ø	5p$Ø	*Ø	L17k	
65	2N4938*	500m	300M§Δ	2.9m	§S	50	40	5.0	50m	.02uØ	10Ø	1.0mØ	50 Δ	50uØ	10kØ	10 Ø	5p$Ø	*Ø	L17k	
66	MM4000	600m		3.4m	§J	100	100 *	4.0	100m	1.0uØ	10Ø	10mØ	20 †#Δ				6pØ	EA	TO39	AØ
67	ST8500	600m$		5.9m	§J	40	40 Ø	3.0		500u	10Ø	500mØ	15 †#Δ						TO5	A
68▼	TZ7500	600m					30				5.0Ø	350mØ	50 Δ†				15p$		X93	A
69▼	TZ7501	600m					30				5.0Ø	350mØ	100 Δ†				15p$		X93	A
70▼	TZ7502	600m					40				5.0Ø	350mØ	50 Δ†				15p$		X93	A
71▼	TZ7503	600m					40				5.0Ø	350mØ	100 Δ†				15p$		X93	A
72	2N3305	600m	20M§Δ	4.0m	§S	50	40	6.0		50nØ	5.0Ø	1.0mØ	40 Δ	50uØ	3.0kØ	6.0 Ø	30pØ	Ø	TO5	AØ
73	2N3306	600m	20M§Δ	4.0m	§S	50	40	6.0		50nØ	5.0Ø	1.0mØ	70 Δ	80uØ	6.0kØ	10 Ø	30pØ	Ø	TO5	AØ
74	2N4412	600m	20M§Δ	3.4m	§S	40	30	5.0	600m	10nØ	5.0Ø	1.0mØ	120 Δ	500nb	32 Ø		10pØ	Ø	TO5	AØ
75	2N4412A	600m	20M§Δ	3.4m	§S	60	60	5.0	600m	10nØ	5.0Ø	1.0mØ	120 Δ	500nb	32 Ø		10pØ	Ø	TO5	Ø
76	2N4414	600m	20M§Δ	3.4m	§S	40	30	5.0	600m	10nØ	5.0Ø	1.0mØ	100 Δ	500nb	32 Ø		10pØ	Ø	TO5	AØ
77	2N4414A	600m	20M§Δ	3.4m	§S	60	60	5.0	600m	10nØ	5.0Ø	1.0mØ	100 Δ	500nb	32 Ø		10pØ	Ø	TO5	AØ
78	ST8065	600m$	25M§Δ	5.9m	§J	60	50 Ø	5.0		1.0uØ	10Ø	500mØ	40 †#Δ						TO5	A
79	ST8190	600m$	25M§Δ	1.5m	§A	40	30	5.0		.10uØ	10Ø	500mØ	25 †Δ				75pØ	PE	TO5	AØ
80	ST8191	600m$	25M§Δ	1.5m	§A	60	50	5.0		.10uØ	10Ø	500mØ	25 †Δ				75pØ	PE	TO5	AØ
81	ST8509	600m$	25M§Δ	5.9m	§J	80	60 Ø	5.0		1.0uØ	10Ø	500mØ	20 †#Δ					PL	TO5	A
82	2N1991	600m	40M§Δ	4.8m	§J	30	20	5.0		5.0uØ	10Ø	150mØ	15 †#Δ				45pØ		TO5	AØ
83	2N1131	600m	50M§Δ	4.0m	§J	50	35	5.0	600m	100u	5.0Ø	1.0mØ	15 Δ	1.0uØb	35 Ø	8.0 Ø	45pØ	D	TO39	AØ
84	JAN2N1131	600m	50M§Δ	4.0m	§J	50	35	5.0	600m	1.0uØ	5.0Ø	1.0mØ	15 Δ	1.0uØb	35 Ø	8.0 Ø	45pØ	Δ	TO5	Ø
85	2N1131A†	600m	50M§Δ	4.0m	§J	60	40	5.0	600m	500nØ	5.0Ø	1.0mØ	15 Δ	1.0uØb	35 Ø	8.0 Ø	30pØ		TO39	A
86	2N1132	600m	60M§Δ	4.0m	§J	50	35	5.0	600m	100u	5.0Ø	1.0mØ	25 Δ	1.0uØb	35 Ø	8.0 Ø	45pØ	D	TO39	AØ
87	JAN2N1132	600m	60M§Δ	4.0m	§J	50	35	5.0	600m	1.0uØ	5.0Ø	1.0mØ	30 Δ	1.0uØb	35 Ø	8.0 Ø	45pØ	Δ	TO5	Ø
88	2N1132A†	600m	60M§Δ	4.0m	§J	60	40	5.0	600m	500nØ	5.0Ø	1.0mØ	25 Δ	1.0uØb	35 Ø	8.0 Ø	30pØ		TO39	A
89	2N1132B†	600m	60M§Δ	4.0m	§J	70	45	6.0	600m	10nØ	5.0Ø	1.0mØ	25 Δ	1.0uØb	35 Ø	8.0 Ø	30pØ		TO39	AØ
90	2N2303	600m	60M§Δ	4.0m	§J	50	35	5.0	500m	1.0uØ	5.0Ø	1.0mØ	75 Δ	1.0uØb	35 Ø	8.0 Ø	45pØ		TO5	AØ
91#	2SA497	600m	70.M§	5.0m	§J	80	80	5.0	800m	1.0u	2.0Ø	200mØ	70 †				40pØ	PE	TO39	A
92#	2SA498	600m	70.M§	5.0m	§J	50	50	5.0	800m	1.0u	2.0Ø	200mØ	70 †				40pØ	PE	TO39	A
93	2N4928	600m	100M§Δ	3.4m	§S	100	100	4.0	100m	.50uØ	10Ø	1.0mØ	20 †Δ				6p$Ø		TO5	AØ
94#	BFX87†	600m	100M§Δ	3.4m	§J	50	50	4.0	600m#	.05uØ	10Ø	10mØ	40 †Δ				12pØ	PE	TO5	AØ
95#	BFX88†	600m	100M§Δ	3.4m	§J	40	40	4.0	600m#	.05uØ	10Ø	10mØ	40 †Δ				12pØ	PE	TO5	AØ
96	TQ53	600m	100M§Δ	3.4m	§J	75	45	5.0	600m	10nØ	5.0Ø	1.0mØ	55	900nb	27	1.2	10pØ	PE	TO5	A
97	TQ53A	600m	100M§Δ	3.4m	§J	80	75	5.0	600m	10nØ	5.0Ø	1.0mØ	55	900nb	27	1.2	10pØ	PE	TO5	A
98	TQ59†	600m	100M§Δ	3.4m	§J	40	30	5.0	600m	20nØ	5.0Ø	1.0mØ	30 Δ	500nØb	35 Ø		10pØ	PE	TO5	A
99	TQ59A†	600m	100M§Δ	3.4m	§J	60	60	5.0	600m	20nØ	5.0Ø	1.0mØ	30 Δ	500nØb	35 Ø		10pØ	PE	TO5	A
100	TQ61†	600m	100M§Δ	3.4m	§J	40	30	5.0	600m	20nØ	5.0Ø	1.0mØ	30 Δ	500nØb	35 Ø		10pØ	PE	TO5	A
101	TQ61A†	600m	100M§Δ	3.4m	§J	60	60	5.0	600m	20nØ	5.0Ø	1.0mØ	30 Δ	500nØb	35 Ø		10pØ	PE	TO5	A
102	TQ63†	600m	100M§Δ	3.4m	§J	20	20	5.0	600m	100nØ	5.0Ø	1.0mØ	20 Δ	500nØb	35 Ø		10pØ	PE	TO5	A
103	TQ63A†	600m	100M§Δ	3.4m	§J	30	30	5.0	600m	100nØ	5.0Ø	1.0mØ	35	500nØb	35 Ø		10pØ	PE	TO5	A
104	2N3081	600m	150M§Δ	3.4m	§J	70	50	6.0	600m	.01uØ	10Ø	150mØ	30 †Δ				13pØ	PE	TO5	AØ
105	2N3495†	600m	150M§Δ	3.4m	§S	120	120	4.5	100m	.10uØ	10Ø	10mØ	40 Δ	300uØ	1.2kØ	2 Ø	6pØ		TO5	AØ
106	ST8230	600m	150M§Δ	3.4m	§J	50	30	5.0	1	.05uØ	10Ø	15mØ	40 †Δ				11pØ	PE	TO5	AØ
107#	BFX36*	600m	160M§Ø	2.2m	§J	60	60	6.0	200m	10nØ	5.0Ø	1.0mØ	700 Ø	50uØ	20kØ	10 Ø	6.0pØ	DPEØ	L2b	
108	2N2904†	600m	200M§Δ	3.4m	§S	60	40	5.0	600m	.02uØ	10Ø	1.0mØ	25 †Δ				8pØ		TO5	AØ
109	JAN2N2904†	600m	200M§Δ	3.4m	§S	60	40	5.0	600m	20nØ	10Ø	1.0mØ	25 Δ				8.0pØ		TO5	AØ
110	2N2904A†	600m	200M§Δ	3.4m	§S	60	60	5.0	600m	.01uØ	10Ø	1.0mØ	40 †Δ				8pØ		TO5	AØ

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	JAN2N2904A†	600m	200M§△	3.4m	§S	60	60	5.0	600m	10nØ	10Ø	1.0mØ	40 △				8.0pØ		TO5	AØ
2	2N2905†	600m	200M§△	3.4m	§S	60	40	5.0	600m	.02uØ	10Ø	1.0mØ	50 †△				8pØ		TO5	AØ
3	JAN2N2905†	600m	200M§△	3.4m	§S	60	40	5.0	600m	20nØ	10Ø	1.0mØ	50 △				8.0pØ		TO5	AØ
4	2N2905A†	600m	200M§△	3.4m	§S	60	60	5.0	600m	.01uØ	10Ø	1.0mØ	100 †△				8pØ		TO5	AØ
5	JAN2N2905A†	600m	200M§△	3.4m	§S	60	60	5.0	600m	10nØ	10Ø	1.0mØ	100 △				8.0pØ		TO5	AØ
6	2N3133†	600m	200M§△	3.4m	§S	50	35	4.0	600m	.05uØ	10Ø	150mØ	40 †#△				10pØ		TO5	AØ
7	2N3134†	600m	200M§△	3.4m	§S	50	35	4.0	600m	.05uØ	10Ø	150mØ	100 †#△				10pØ		TO5	AØ
8	2N3494†	600m	200M§△	3.4m	§S	80	80	4.5	100m	.10uØ	10Ø	10mØ	40 △	300uØ	1.2kØ	2 Ø	7pØ		TO5	AØ
9	2N3671†	600m	200M§△	3.4m	§S	60	50	5.0	600m	10nØ	10Ø	.10mØ	55 †△				9pØ		TO5	AØ
10#	TM1614	600m	200M§△	2.2m	§A	60	50 §	5.0	600m	.05uØ	10Ø	150mØ	40 †#				8pØ	PE	TO5	
11#	TM1712	600m	200M§△	2.2m	§A	60	40 §	5.0	600m	.05uØ	10Ø	150mØ	100 †#				8pØ	PE	TO5	
12	MD3467†	600m	250M§	3.4m	§J	40	40	5.0	1	.09uØ	1.0Ø	500mØ	40 †#				11p$	AN	L17k	
13	MD3762†	600m	250M§	3.4m	§J	40	40	5.0	1.5	.10uØ	2.0Ø	1 Ø	40 †#				11p$	AN	L17k	
14	TIS91	625m		5.0m	§J	40	40	5.0	400m	.10uØ	2.0Ø	50mØ	160 †					PE†	TO92	B
15	TIS93	625m		5.0m	§J	40	40	5.0	400m	.10uØ	2.0Ø	50mØ	160 †					PE†	X55	A
16	2N3931	700m	40M§△	4.0m	§J	180	180	6.0	100m	10nØ	10Ø	1.0mØ	100 △				7.0pØ	Ø	TO39	Ø
17	2N4358	700m	40M§△	4.0m	§J	240	240	6.0	100m	.02uØ	10Ø	1.0mØ	100 △	25uØ	12kØ		7pØ	Ø	TO39	AØ
18#	BC139	700m	40M§△	4.0m	§J	40	40	5.0		.02uØ	1.0Ø	300mØ	40 †				10pØ	DPE	TO5	
19♦	2N3224	700m	60M§△	4.6m	§S	100	100	6.0		100nØ	5.0Ø	1.0mØ	20 △				20pØ		TO5	AØ
20#	BFW44	700m	60.M§	4.0m	§J	150	150	6.0		.01uØ	10Ø	10mØ	40 †#△				7pØ	PE	TO39	AØ
21#	BFX91	700m	60.M§	4.0m	§J	180	180	6.0		.01uØ	10Ø	1.0mØ	170 †#				5.0p	PE	TO39	AØ
22	2N3225	700m	80M§△	4.6m	§S	100	100	6.0		100nØ	5.0Ø	1.0mØ	40 △				20pØ		TO5	AØ
23#	BC143	700m	100M§△	4.0m	§J	60	60	5.0		.05uØ	2.0Ø	200mØ	20 †△				20pØ	PE	TO5	
24#	V410A	700m	170M§	4.0m	§J	35	35	4.0		.10uØ	1.0Ø	50mØ	40 †#△				20p	PE	TO39	AØ
25	2N3502†	700m	200M§△	4.0m	§J	45	45	5.0	600m	.01u§	10Ø		35 △	800uØ	23kØ	15 Ø	8pØ	Ø	TO5	AØ
26	2N3503†	700m	200M§△	4.0m	§J	60	60	5.0	600m	.01u§	10Ø	10mØ	35 †△	800uØ	23kØ	15 Ø	8pØ	Ø	TO5	AØ
27♦#	AT480	700m	200M△§	4.0m	§J	30	30	5.0	500m	200nØ	10Ø	150mØ	30 †△				8.0pØ	PE	TO39	AØ
28▼#	AT481	700m	200M△§	4.0m	§J	45	45	5.0	500m	200n	10Ø	150mØ	30 △				8.0pØ	PE	TO39	AØ
29▼#	AT482	700m	200M△§	4.0m	§J	30	30	5.0	500m	200n	10Ø	150mØ	100 △				8.0pØ	PE	TO39	AØ
30▼#	AT483	700m	200M△§	4.0m	§J	45	45	5.0	500m	200n	10Ø	150mØ	100 △				8.0pØ	PE	TO39	AØ
31▼#	AT484	700m	200M△§	4.0m	§J	30	30	5.0	500m	200n	10Ø	150mØ	30 △				8.0pØ	PE	TO39	AØ
32▼#	AT485	700m	200M△§	4.0m	§J	45	45	5.0	500m	200n	10Ø	150mØ	30 △				8.0pØ	PE	TO39	AØ
33#	BSW23†	700m	200M§△	4.0m	§J						10Ø	150mØ	40 #△					PE	TO5	
34	S18000†	700m	200M§△	4.0m	§J	60	50	5.0	600m	.01uØ	1.0Ø	100mØ	110 †#				8pØ	PE	TO5	AØ
35#	BFY64†	700m	250M§	4.0m	§J	40	40	5.0		.03u§	10Ø	10mØ	200	110u	1.0k	2.4	6.0p	DPE	TO5	AØ
36	2N4872†	700m	900M§△	4.0m	§J	12	12	4.5	50m	.01u§	.30Ø	10mØ	120 †#				2pØ		TO18	AØ
37#	2SA546	750m	80.M§	5.0m	§J	70	60	5.0	1	3.0uØ	3.0Ø	1 Ø	25 †△				50p	PE	TO39	AØ
38#	2SA546A	750m	80.M§	5.0m	§J	90	80	5.0	1	3.0uØ	3.0Ø	1 Ø	25 †△				50p	PE	TO39	AØ
39#	BC160-6	750m	100M§	5.0m	§J	40	40	5.0	1.0	100n§	1.0Ø	100mØ	40 †△				20p	PE	TO39	AØ
40#	BC160-10	750m	100M§	5.0m	§J	40	40	5.0	1.0	100n§	1.0Ø	100mØ	63 †△				20p	PE	TO39	AØ
41#	BC160-16	750m	100M§	5.0m	§J	40	40	5.0	1.0	100n§	1.0Ø	100mØ	100 †△				20p	PE	TO39	AØ
42#	BC161-6	750m	100M§	5.0m	§J	60	60	5.0	1.0	100n§	1.0Ø	100mØ	40 †△				20p	PE	TO39	AØ
43#	BC161-10	750m	100M§	5.0m	§J	60	60	5.0	1.0	100n§	1.0Ø	100mØ	63 †△				20p	PE	TO39	AØ
44#	BC161-16	750m	100M§	5.0m	§J	60	60	5.0	1.0	100n§	1.0Ø	100mØ	100 †△				20p	PE	TO39	AØ
45#	2SA544†	750m	160M§△	5.0m	§J	60	45	5.0	200m	100nØ	10Ø	10mØ	40 †△				7.0pØ	PE	TO39	AØ
46#	2SA552†	750m	160M§△	5.0m	§J	60	45	5.0	200m	100nØ	10Ø	10mØ	40 †△				7.0pØ	PE	TO39	AØ
47#	2SA501	750m	200M§		§J	40	30	5.0	200m	1.0uØ	1.0Ø	10mØ	70 †				10p	PE	TO39	A
48#	2SA537	750m	200M§	4.3m	§J	60	50	4.0	700m		4.0Ø	50mØ	80 †					PE	TO5	AØ
49#	2SA537A	750m	200M§	4.3m	§J	90	80	4.0	700m		4.0Ø	50mØ	80 †					PE	TO5	AØ
50#	2SA594	750m	200M§		§J	50	30	5.0	200m	.10uØ	1.0Ø	10mØ	60 †				7.0p	D	TO5	A
51	2N3464	800m	30M§△	4.7m	§J	60	40	5.0		100uØ	4.0Ø	100mØ	100 †#△					PE	TO5	Ø
52#	2SA510	800m	50M§	6.4m	§J	110	100	5.0	1.0	1.0uØ	10Ø	50m	50				60pØ	PL	TO39	
53#	2SA511	800m	50M§	6.4m	§J	90	80	5.0	1.0	1.0uØ	10Ø	50m	50				60pØ	PL	TO39	
54#	2SA512	800m	50M§	6.4m	§J	70	60	5.0	1.0	1.0uØ	10Ø	50m	50				60pØ	PL	TO39	
55#	2SA513	800m	50M§	6.4m	§J	50	40	5.0	1.0	1.0uØ	10Ø	50m	50				60pØ	PL	TO39	
56#	2SA516	800m	50.M§	5.3m	§J	80	60	5.0	15	50uØ	2.0Ø	200mØ	60 †				43p	D	TO5	A
57#	2SA516A	800m	50.M§	5.3m	§J	120	100	5.0	15	50uØ	2.0Ø	200mØ	60 †				43p	D	TO5	A
58	2N2927†	800m	100M§△	4.5m	§J	25	25	4.0	500m	.02uØ	10Ø	10mØ	25 △	1.2mØ	1.5kØ	26 Ø	20pØ		TO5	AØ
59	2N4030†	800m	100M§△	4.5m	§J	60	60	5.0	1	.05uØ	5.0Ø	.10mØ	30 †△				20p$Ø		TO5	AØ
60	2N4031†	800m	100M§△	4.5m	§J	80	80	5.0	1	.05uØ	5.0Ø	.10mØ	30 †△				20p$Ø		TO5	AØ
61♦#	AT460	800m	100M△§	4.5m	§J	40	40	5.0	1.0	200nØ	1.0Ø	50mØ	40 †△				20pØ	PE	TO39	AØ
62▼#	AT461	800m	100M△§	4.5m	§J	60	60	5.0	1.0	200n	1.0Ø	50mØ	40 △				20pØ	PE	TO39	AØ
63▼#	AT462	800m	100M△§	4.5m	§J	80	80	5.0	1.0	200n	1.0Ø	50mØ	40 △				20pØ	PE	TO39	AØ
64▼#	AT463	800m	100M△§	4.5m	§J	40	40	5.0	1.0	200n	1.0Ø	50mØ	100 △				20pØ	PE	TO39	AØ
65▼#	AT464	800m	100M△§	4.5m	§J	60	60	5.0	1.0	200n	1.0Ø	50mØ	100 △				20pØ	PE	TO39	AØ
66▼#	AT465	800m	100M△§	4.5m	§J	80	80	5.0	1.0	200n	1.0Ø	50mØ	100 △				20pØ	PE	TO39	AØ
67▼#	AT466	800m	100M△§	4.5m	§J	40	40	5.0	1.0	200n	1.0Ø	50mØ	40 △				20pØ	PE	TO39	AØ
68▼#	AT467	800m	100M△§	4.5m	§J	60	60	5.0	1.0	200n	1.0Ø	50mØ	40 △				20pØ	PE	TO39	AØ
69▼#	AT468	800m	100M△§	4.5m	§J	80	80	5.0	1.0	200n	1.0Ø	50mØ	40 △				20pØ	PE	TO39	AØ
70#	BC360-6	800m	100M§	4.5m	§J	40	40	5.0	500m	100n§	5.0Ø	50mØ	40 †△				10p	PE	TO39	AØ
71#	BC360-10	800m	100M§	4.5m	§J	40	40	5.0	500m	100n§	5.0Ø	50mØ	63 †△				10p	PE	TO39	AØ
72#	BC360-16	800m	100M§	4.5m	§J	40	40	5.0	500m	100n§	5.0Ø	50mØ	100 †△				10p	PE	TO39	AØ
73#	BC361-6	800m	100M§	4.5m	§J	60	60	5.0	500m	100n§	5.0Ø	50mØ	40 †△				10p	PE	TO39	AØ
74#	BC361-10	800m	100M§	4.5m	§J	60	60	5.0	500m	100n§	5.0Ø	50mØ	63 †△				10p	PE	TO39	AØ
75#	BFS12	800m	100M§△	4.5m	§J	40	40	5.0	1	.05uØ	1.0Ø	150mØ	40 †△#				35pØ	PE	TO39	AØ
76#	BFX38	800m	100M§△	4.5m	§J	55	55	5.0	1.0	50nØ	5.0Ø	100uØ	65 †				15p	DPE	TO5	Ø
77#	BFX39	800m	100M§△	4.5m	§J	55	55	5.0	1.0	50nØ	5.0Ø	100uØ	65 †				15p	DPE	TO5	Ø
78#	BFX40	800m	100M§△	4.5m	§J	75	75	5.0	1.0	50nØ	5.0Ø	100uØ	125 †				15p	DPE	TO5	Ø
79#	BFX41	800m	100M§△	4.5m	§J	75	75	5.0	1.0	50nØ	5.0Ø	100uØ	125 †				15p	DPE	TO5	Ø
80#	BSX40	800m	100M§△	4.5m	§J	30	30	5.0	500m	25nØ	10Ø	10mØ	40 †△				10pØ	PE	TO39	AØ
81	2N2800†	800m	120M§△	4.5m	§S	50	35	5.0	800m	.10u#	10Ø	.10mØ	20 △				25pØ		TO5	AØ
82	2N2801†	800m	120M§△	4.5m	§S	50	35	5.0	800m	.10u#	10Ø	.10mØ	30 △				25pØ		TO5	AØ
83	2N3072†	800m	130M§△	4.5m	§J	60	60	4.0	500m	.01u§	10Ø	10mØ	25 △	1.2mØ	1.5kØ	26 Ø	10pØ		TO5	AØ
84	2N3120†	800m	130M§△	4.5m	§J	45	45	4.0	500m	.01u§	10Ø	10mØ	25 △	1.2mØ	1.5kØ	26 Ø	10pØ		TO5	AØ
85#	2SA503†	800m	130M§	5.3m	§J	60	50	5.0	600m	.50uØ	2.0Ø	150mØ	30 †△				18p	PE	TO39	AØ
86#	2SA504†	800m	130M§	5.3m	§J	40	30	5.0	600m	.50uØ	2.0Ø	150mØ	30 †△				18p	PE	TO39	AØ
87	2N4032†	800m	150M§△	4.5m	§J	60	60	5.0	1	.05uØ	5.0Ø	.10mØ	75 †△				20p$Ø		TO5	AØ
88	2N4033†	800m	150M§△	4.5m	§J	80	80	5.0	1	.05uØ	5.0Ø	.10mØ	75 †△				20p$Ø		TO5	AØ
89#	2SA560	800m	150M§			80	60	5.0	800m	.50u	2.0Ø	150mØ	60 †				19p	PE	TO39	
90#	BFX74A	800m	150M§	4.5m	§J	60	60	5.0		.05uØ	10Ø	150mØ	50 †#				15p	PE	TO5	AØ
91#	BSX41	800m	150M§△	4.5m	§J	30	30	5.0	500m	25nØ	10Ø	10mØ	100 †△				10pØ	PE	TO39	AØ
92#	2SA571†	800m	200M§△	5.6m	§J	60	45	5.0	1.0	100n§	10Ø	50mØ	40 †△				25pØ	PE	TO5	
93▼#	BC287	800m	200M§	4.5m	§J	60	60	5.0	1.0	500mØ	2.0Ø	500mØ	20 †△				13p	DPE	TO5	
94	SE8541	800m	250M§	4.5m	§J	30	30	5.0	1.0	50n	1.0Ø	150mØ	70 †#				20p$	DPL	TO39	A
95	2N5042	800m	500M§Ø	4.5m	§J	40	40	5.0	1	.05uØ	1.0Ø	150mØ	40 †#				35p$		TO39	AØ
96#	2SA257	5.0 Ø	80M§		§J	50	40	5.0	2.0	5.0u	2.0Ø	200mØ	50 †				40pØ	EM	TO5	Ø
97#	2SA258	5.0 Ø	80M§		§J	50	40	5.0	2.0	5.0u	2.0Ø	100mØ	70 †				40pØ	EM	TO5	Ø
98#	2SA527	5.0 Ø	80M§		§J	50	40	5.0	2.0	5.0u	2.0Ø	200mØ	50 †				40pØ	EM	TO5	Ø
99#	2SA528	5.0 Ø	80M§		§J	50	40	5.0	2.0	5.0u	2.0Ø	100mØ	70 †				40pØ	EM	TO5	Ø

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1♦	2N622		300kΔ	2.8m	$J	50	30	20	50m	100n	1.5Ø	500uΔ	25 †				70pØ	FAØ	TO5	A
2▼	TD200*		30MΔ§			60	30	5.0				100uØ	120 Δ†					Ø	L2z	
3▼	TD201*		30MΔ§			60	30	5.0				100uØ	120 Δ†					Ø	L2z	
4▼	TD202*		30MΔ§			60	50			10n		100uØ	120 Δ†				8.0p$		L2z	
5▼	TD250*		30MΔ§			60	30	5.0				100uØ	120 Δ†					Ø	L2z	
6	MM1755		250M§Δ			60	30	5.0		.01uØ	10Ø	150mØ	40 †Δ				8pØ		TO46	
7	MM1756†		250M§Δ			75	40	6.0		.01uØ	10Ø	150mØ	40 †Δ				8pØ		TO46	
8	MM1757		250M§Δ			60	30	5.0		.01uØ	10Ø	150mØ	100 †Δ				8pØ		TO46	
9	MM1758†		300M§Δ			75	40	6.0		.01uØ	10Ø	150mØ	100 †Δ				8pØ		TO46	
10	2N1247	30m	5.0M	1.0m	§A	6.0	6.0	2.0		5.0n	3.0Ø	5.0mØ	15 †Δ				12p		TO5	A
11	2N1248	30m	5.0M	1.1m	§A	6.0	6.0	1.0		1.0n	3.0Ø	20uØ	15 †Δ						TO5	A
12	2N1249	30m	5.0M	250u	$	6.0		2.0	5.0m		3.0	20uØ	38		50		7.0p		TO5	
13	MRD100*	50m		700u	#J	80	40			100nΔ								ANT	u43	B
14	MRD150*	50m		700u	#J		40			100nΔ								ANT	u43a	B
15	A141	50m*	150M§	625m	♦J	20	20	4.0	50m	100n	.50Ø	200uØ	130	15u	20k	15	4.0p$	PEØ	u45	B
16	A142	50m*	150M§	625m	♦J	20	20	4.0	50m	100n	.50Ø	200uØ	220	20u	30k	25	4.0p$	PEØ	u45	B
17	A143	50m*	150M§	625m	♦J	20	20	4.0	50m	100n	.50Ø	200uØ	380	35u	45k	40	4.0p$	PEØ	u45	B
18	BC112	50m*	150M§Δ	625u	♦J	20	20	4.0	50m		.50Ø	.20mØ	80 †Δ					PE	u40a	
19#	BC146	50m	150M§	625u	♦J	20	20	4.0	50m		.50Ø	.20mØ	220 †	20u	30	25		PE		
20#	BF230	50m*	200M§	625u	♦J	30	20	5.0	30m		10Ø	1.0mØ	67 †				.95pt	PE	u47	D
21#	BSW12†	50m*	200M§Δ	625u	♦J	40	20	5.0	200m	.05uØ	1.0Ø	10mØ	40 †Δ				6pØ	PE	u47	D
22#	BF229	50m*	260M§	625u	♦J	30	20	5.0	30m		10Ø	1.0mØ	115 †				.95pt	PE	u47	D
23#	BC197	50m*	300M§	625u	♦J	45	45	5.0	100m	15nØ	5.0Ø	2.0mØ	125 Δ*				4.5pØ	PE	u47	D
24#	BC198	50m*	300M§	625u	♦J	20	20	5.0	100m	15n	5.0Ø	2.0mØ	125 Δ*				4.5pØ	PE	u47	D
25#	BC199	50m*	300M§	625u	♦J	20	20	5.0	100m	15n	5.0Ø	2.0mØ	240 Δ*				4.5pØ	PE	u47	D
26#	BSW11†	50m*	400M§Δ	625u	♦J	25	15	5.0	200m	.10uØ	1.0Ø	10mØ	50 †Δ				3pØ	PE	u47	D
27	2SC656	50m	550M§		♦J	10		2.0	5.0m	1.0u	10Ø	5.0mØ	130				1.5p	PE	u38	
28#	BFS13E	60m		1.7m	♦J	40	40	6.0		50n	5.0Ø	1.0mØ	100 Δ				7pØ	PL		D
29#	BFS13F	60m		1.7m	♦J	40	40	6.0		50n	5.0Ø	1.0mØ	100 Δ				7pØ	PL		E
30#	BFS13G	60m		1.7m	♦J	40	40	6.0		50n	5.0Ø	1.0mØ	100 Δ				7pØ	PL		F
31#	BFS15E	60m		1.7m	♦J	40	30	5.0		50n	10Ø	10mØ	55 Δ				4pØ	PE		D
32#	BFS15F	60m		1.7m	♦J	40	30	5.0		50n	10Ø	10mØ	55 Δ				4pØ	PE		E
33#	BFS15G	60m		1.7m	♦J	40	30	5.0		50n	10Ø	10mØ	55 Δ				4pØ	PE		F
34#	BFS27E	60m		1.7m	♦J	20	20	5.0		.15u	1.0Ø	10mØ	50 Δ				4pØ	PE		D
35#	BFS27F	60m		1.7m	♦J	20	20	5.0		.15u	1.0Ø	10mØ	50 Δ				4pØ	PE		F
36#	BFS27G	60m		1.7m	♦J	20	20	5.0		.15u	1.0Ø	10mØ	50 Δ				4pØ	PE		G
37#	FSP164	60m		593u	♦J	12	5.0	3.0		100nØ	1.0Ø	10mØ	20 †Δ				3.0pØ	DPL	u14	E
38#	BFY69	60m	20MΔ§	556u	$J	30	18	5.0		.05u	1.0Ø	.50mØ	40 Δ					PL	ZA9	
39#	2SC250	60m	170M§		§J	20		2.0	25m	2.0uØ	6.0Ø	2.0m	45				2.0p	PL	TO44	
40#	FSP215	60m	800M§	593u	♦J	30	15	3.0		25nØ	1.0Ø	3.0mØ	40 †				2.0p	DPL	u14	E
41	2N1267	65m§		769u	$S	20		2.0	100m	.70u	10Ø	2.0mØ	11				1.5p	D	TO9	AØ
42	BC156	65m	50M§Δ	625u	#J	5.0	5.0	5.0	50m	.10u	1.0Ø	.50mØ	85 Δ				3.0p	PE	u30a	
43	RT930H	70m	30M§Δ		♦J	45	45	5.0		.01u	5.0Ø	.01mØ	100 †Δ				8pØ	PEØ	u24	
44	2N821†	75m		1.2m	#S	30	25	25	400m	10uØ	1.0Ø	50mØ	40 †Δ				20pØ		u8	A
45#	BC127	75m	30M§		♦J	25	20	5.0	20n	20n	1.0Ø	1.0mØ	125 †Δ	11u	7.5k	3.0	10pØ	PL	u21	
46#	BFY47	75m*	50M§	1.0m	♦J	5.0	5.0	5.0	50m	15nØ	.50Ø	250uØ	50 Δ					PLØ		
47#	BFY48	75m*	50M§	1.0m	♦J	30	20	5.0	50m	15nØ	.50Ø	250uØ	50 Δ					PLØ		
48#	BFY49	75m*	50M§	1.0m	♦J	45	30	5.0	50m	15nØ	.50Ø	250uØ	50 Δ					PLØ		
49	2SC655	75m	80.M§		♦J	10		2.0	10m	1.0u	5.0Ø	2.0mØ	250	35u	3.5k	2.5	4.5p	PE	u38	
50#	FSP289-1	75m	350M§	751u	♦J	70	50	5.0		25nØ	5.0Ø	10mØ	80 †				2.8p	DPL	u14	E
51#	FSP165	75m	370M§	751u	♦J	40	15	5.0		100nØ	1.0Ø	10mØ	30 †Δ				4.5p	DPE	u14	E
52#	FSP242-1	75m	400M§	751u	♦J	45	25	5.0		25nØ	5.0Ø	10mØ	80 †				4.2p	DPL	u14	E
53	2N1268	80m§		769u	$S	20		2.0	100m	.70u	10Ø	2.0mØ	20				1.5p	D	TO9	AØ
54	2SC186	85m	250M§	909u	♦J	20	15 §	2.0	25m	2.0uØ	6.0Ø	2.5m	40				4.0p	PL	TO1	
55	2SC187	85m	250M§	909u	♦J	20	15 §	2.0	25m	2.0uØ	6.0Ø	2.5m	50				4.0p	PL	TO1	
56	D26E2	90m		1.2m	#J	18	18	5.0		25n	2.5Ø	100uØ	40 †Δ				4.0pØ	PEØ	u40	
57	D26E3	90m		1.2m	#J	18	18	5.0		25n	2.5Ø	100uØ	70 †Δ				4.0pØ	PEØ	u40	
58	D26E4	90m		1.2m	#J	18	18	5.0		25n	2.5Ø	100uØ	115 †Δ				4.0pØ	PEØ	u40	
59	D26E5	90m		1.2m	#J	18	18	5.0		25n	2.5Ø	100uØ	180 †Δ				4.0pØ	PEØ	u40	
60	D26E6	90m		1.2m	#J	18	18	5.0		25n	2.5Ø	100uØ	40 †Δ				4.0pØ	PEØ	u40	
61	D26G1	90m		1.2m	#J	30	15	3.0		.01u	1.0Ø	3.0mØ	20 †Δ				1.7p	PEØ	u40	
62	BC121	90m	30.M§	1.1m	♦J	5.0	5.0	5.0	50m	10nØ	.50Ø	.25mØ	50					PE	u32	
63	BC122	90m	30.M§	1.1m	♦J	30	20	5.0	50m	10nØ	.50Ø	.25mØ	50					PE	u32	
64	BC123	90m	30.M§	1.1m	♦J	45	30	5.0	50m	10nØ	.50Ø	.25mØ	50					PE	u32	
65	D26E1	90m	80M§Δ	1.2m	#J	45	45	5.0		10n	5.0Ø	10mØ	100 †Δ	1.0uØb	32 Ø	6.0 Ø	8.0pØ	PEØ	u40	
66	2N343A	100mØ		7.6m	$J	60	60	1.0	60m	1.0uØ				2.0ub	30	3.0			TO11	
67#	2SC648H	100m				30	25	6.0	30m	100u	6.0Ø	.10mØ	160 †Δ					Ø	TO1	
68#	2SC695	100m			§J	20	15	5.0	30m	.10uØ	3.0Ø	.10mØ	150 †					PE	u23a	C
69#	DT1602	100m				75	75	1.0	20m			3.0mØ	5.0						TO5	
70#	DT1603	100m				150	150	1.0	20m			3.0mØ	5.0						TO5	
71#	DT1612	100m				75	75	1.0	20m			3.0mØ	20						TO5	
72#	DT1613	100m				150	150	1.0	20m			3.0mØ	20						TO5	
73#	FSP42	100m		1.0m	♦J	75	30	7.0		25nØ	1.0Ø	10mØ	70 †				18p	DPLΔ	u14	E
74#	FSP42-1	100m		1.0m	♦J	75	30	7.0		25nØ	1.0Ø	10mØ	120 †				18p	DPLΔ	u14	E
75#	FSP166	100m		1.0m	♦J	100	60	7.0		25nØ	1.0Ø	10mØ	70 †				13p	DPL	u14	E
76#	FSP166-1	100m		1.0m	♦J	100	60	7.0		25nØ	1.0Ø	10mØ	120 †				13p	DPL	u14	E
77	MRD450*	100m		1.3m	#J		40			100nΔ								ANT	u52	
78	NS1510	100m			§		20	8.0			1.0Ø	.10mØ	75 †				6pØ		TO18	AØ
79#	2S701	100m#	8.0M	2.0m	#A	25	25	1.0	20m	1.0u	6.0Ø	1.0m	30	6.0u	1.4k	1.5		G	TO5	A
80#	2S702	100m#	12.M	2.0m	#A	25	25	1.0	20m	1.0u	6.0Ø	1.0m	50	9.0u	2.5k	2.5		G	TO5	A
81#	2S703	100m#	16.M	2.0m	#A	25	25	1.0	20m	1.0u	6.0Ø	1.0m	120	13u	6.0k	4.0		G	TO5	A
82	2N930/TNT	100m	30M§Δ	555u		45	45	5.0	30m	10n	5.0Ø	1.0mØ	150 Δ	1.0uØb	32 Ø	6.0 Ø	8.0pØ	PLØ	u17	
83#	BC128	100m	30.M§		♦J	25	20	5.0		.10u	1.0Ø	1.0mØ	150 †Δ				40pØ	PL	X16	
84#	MT4101	100m	30M§Δ	8.0m	§J	60	45	5.0	30m	10nØ	5.0Ø	1.0mØ	70 †Δ#	1.0uØb	32 Ø	6.0 Ø	4.0pØ	PE		
85#	MT4102.A	100m	30M§Δ	8.0m	§J	60	45	5.0	30m	10nØ	5.0Ø	1.0mØ	200 †Δ#	1.0uØb	32 Ø	6.0 Ø	4.0pØ	PE		
86#	MT4103	100m	30M§Δ	8.0m	§J	60	45	5.0	30m	20nØ	5.0Ø	1.0mØ	100 †Δ#	20uØ	10k		4.0pØ	PE		
87	TNT839	100m	45M§		§J	45		2.0		1.0u			20 Δ				8.0p	ME	u17	
88	TNT840	100m	45M§		§J	45		2.0		1.0u			40 Δ				8.0p	ME	u17	
89	TNT842	100m	45M§		§J	45		2.0		1.0u			20 †Δ				6.0p	ME	u17	
90#	2SC780G	100m	50M§Δ	1.0m	♦J	80	80 #	5.0	20m	2.0u#	2.0Ø	2.0mØ	40 †Δ*				2.0p	PL†	RO67a	B
91#	2SC183	100m	60M§Δ		♦J	20	18 §	5.0	30m	.10uØ	3.0Ø	.50mØ	75 †	8.5u	1.8k	.50	1.6p	PE	u23a	C
92	TNT841	100m	65.M§		§J	45		2.0		1.0u			80 Δ				8.0p	ME	u17	
93	TNT843	100m	65.M§		§J	45		2.0		1.0u			45 †Δ				6.0p	ME	u17	
94#	2SC184	100m	100M§Δ		♦J	20	18 §	5.0	30m	.10uØ	3.0Ø	.50mØ	75 †	8.5u	1.8k	.50	1.6p	PE	u23a	C
95	3N71Ø	100m	100M§Δ	667u	§A	15	8.0	8.0	20m	.01uØ	2.0Ø	2.0mØ	40 †Δ					Δ	TO72	GCØ
96	3N72Ø	100m	100M§Δ	667u	§A	15	8.0	8.0	20m	.01uØ	2.0Ø	2.0mØ	40 †Δ					Δ	TO72	GCØ
97	3N73Ø	100m	100M§Δ	667u	§A	15	8.0	8.0	20m	.01uØ	2.0Ø	2.0mØ	40 †Δ					Δ	TO72	GCØ
98#	2SC185	100m	150M§Δ		♦J	20	18 §	5.0	30m	.10uØ	3.0Ø	.50mØ	75 †				1.6p	PE	u23a	C
99#	2SC469	100m	150M§Δ		♦J	20	18 §	5.0	30m	.10uØ	3.0Ø	.50mØ	90 †				1.6p	PE	u23a	C
100#	MT6003	100m	150M§Δ	8.0m	§J	25	25	4.0	500m	100nØ	5.0Ø	50mØ	30 †Δ#				12pØ	PEΔ		
101#	2SC926	100m	160M§	1.1m	§J	115	115	3.5	100m	.20u	3.0Ø	1.0mØ	50 †				4.5pØ	D	u37	
102#	2SC401	100m	170M§		♦J	50	25	5.0	100m	.20uØ	3.0Ø	1.0mØ	90 †				2.5p	PE	u37	
103#	2SC402	100m	170M§		♦J	50	25	3.0	100m	.20uØ	3.0Ø	1.0mØ	90 †				2.5p	PE	u37	
104#	2SC403	100m	170M§		♦J	50	25	3.0	100m	.20uØ	3.0Ø	1.0mØ	60 †				2.2p	PE	u37	
105#	2SC404	100m	170M§		♦J	50	25	3.0	50m	.20uØ	3.0Ø	1.0mØ	90 †				2.2p	PE	u37	
106#	2SC155	100m	200M§	1.0m	♦J	20		2.0	25m	2.0uØ	6.0Ø	2.0m	35				2.5p	PL	u31	
107#	2SC156	100m	200M§	1.0m	♦J	20		2.0	25m	2.0uØ	6.0Ø	2.0m	50				2.5p	PL	u31	
108#	2SC266	100m	200M§Δ		§J	30	20	5.0	30m	100nØ	3.0Ø	500uØ	60	250nb	26	4.0	35pØ	PE	u23a	C
109#	2SC641H†	100m	200M§Δ	1.0m	♦J	40	15	5.0	100m	.25uØ	1.0Ø	10mØ	35 †Δ*	3.1u	36k	1.5	4.5p	E†	MM12c	B
110#	2SC894	100m	200M§	1.1m	§J	25	13	6.0	100m	.20u	3.0Ø	1.0mØ	100 †				3.5pØ	D		

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O D E
1#	MT6001	100m	200M§Δ	8.0m	§J	40	30 Ø	5.0	500m	50n§	1.0Ø	50mØ	30 †Δ#				10pØ	PEΔ			
2#	MT6002	100m	200M§Δ	8.0m	§J	40	30 Ø	5.0	500m	50n§	1.0Ø	50mØ	60 †Δ#				10pØ	PEΔ			
3#	2SC752	100m	300M§	1.0m	♦J	30	12	4.0	100m	500nØ	10Ø	10m	80				4.0p	PE	R67a	B	
4	2N706/TNT	100m	320MΔ	556u	§J	25	20 §	3.0		.05uØ	1.0Ø	10mØ	20 †#Δ				6pØ	D	u17		
5#	2SC429	100m	380M§		§J	25	12	2.0	10m	1.0uØ	6.0Ø	1.0m	27	5.5u	800	.85	2pØ	PE	u23	C	
6#	2SC785	100m	400M§	1.0m	♦J	40	30	4.0	20m	.50uØ	6.0Ø	1.0mØ	25 †Δ*				.65pt	PE	RO67a	B	
7#	MT9001†	100m	400M§Δ	8.0m	§J	40	40 Ø	4.5	200m	50nØ	1.0Ø	10mØ	40 †Δ				4.0pØ	PE			
8#	MT9002†	100m	400M§Δ	8.0m	§J	30	30 Ø	4.5	200m	50nØ	1.0Ø	10mØ	30 †Δ				4.0pØ	PE			
9#	2SC430	100m	420M§		§J	25	12	2.0	10m	1.0uØ	6.0Ø	1.0m	46	6.0u	1.3k	.85	2pØ	PE	u23	C	
10	2N708/TNT	100m	480MΔ	555u	§J	40	15	5.0		25nØ	1.0Ø	10mØ	30 †Δ#				6.0pØ	PL	u17		
11#	2SC784	100m	500M§	1.0m	♦J	40	30	4.0	20m	.50uØ	6.0Ø	1.0mØ	25 †Δ*				.65pt	PEØ	RO67a	B	
12#	2SC800	100m	600M§Δ		§J	30	25	4.0	10m	.10u	6.0Ø	2.0mØ	80 †				.50p	PE	u23	C	
13#	2SC535	100m	700M§			30	20	4.0	20m	.50u	6.0Ø	1.0mØ	35 †Δ				.90p	PEØ			
14	2N709/TNT	100m	800M§	556u	§J	15	6.0	4.0		.05uØ	.50Ø	10mØ	55 †				3pØ	PL	u17		
15	2N2369/TNT	100m	800MΔ	556u		40	15	4.5	500m	.40uØ	1.0Ø	10m	80 †				4pØ	PE	u17		
16#	2SC271	100m	800M§Δ		§J	25	12	3.0	20m	1.0uØ	6.0Ø	2.0m	70				1pØ	PE	u23a	C	
17	2N2784/TNT	100m	1.0G§	556u	§J	15	6.0	4.0	500m	5nØ	.50Ø	10mØ	120 †Ø				3pØ	PE	u17		
18#	2SC289	100m	1.1G§		§J	25	12	3.0	10m	1.0uØ	6.0Ø	2.0m	70				1pØ	PE	u23	C	
19#	2SC272	100m	1.2G§		§J	25	12	3.0	20m	1.0uØ	6.0Ø	2.0m	70				1pØ	PE	u23	C	
20	2N3633/TNT	100m	1.3G§	556u		15	6.0	4.0	50m	5nØ	.50Ø	10mØ	150 †Ø				2.5pØ	PE	u17		
21	2N1270	110m§		769u	§S	20		2.0	100m	.70u	10Ø	2.0mØ	11				1.5p	D	TO9	AØ	
22▼	BFS18	110m	200M§	1.0m	♦J	30	20	5.0	30m	100nØ	10Ø	1.0mØ	125 †Ø				1.0p$	PE			
23#	2SC170	110m	250M		§J	25	20 §	3.0	50m	.50uØ	6.0Ø	10m	60				5.0p	PL	TO18		
24▼	BFS19	110m	260M§	1.0m	♦J	30	20	5.0	30m	100nØ	10Ø	1.0mØ	225 †Ø				1.0p$	PE			
25▼	BCW31	110m	300M§	1.0m	♦J	30	20	5.0	50m	100nØ	5.0Ø	10uØ	90 †				4.0p$Ø	PE			
26▼#	BCW31R	110m	300M§	1.1m	♦J	30	20	5.0	50m	100nØ	5.0Ø	10 Ø	90 †				2.5p$	PE†	u56	C	
27▼	BCW32	110m	300M§	1.0m	♦J	30	20	5.0	50m	100nØ	5.0Ø	10uØ	150 †				4.0p$Ø	PE			
28▼#	BCW32R	110m	300M§	1.1m	♦J	30	20	5.0	50m	100nØ	5.0Ø	10 Ø	150 †				2.5p$	PE†	u56	C	
29▼	BCW33	110m	300M§	1.0m	♦J	30	20	5.0	50m	100nØ	5.0Ø	10uØ	270 †				4.0p$Ø	PE			
30▼#	BCW33R	110m	300M§	1.1m	♦J	30	20	5.0	50m	100nØ	5.0Ø	10 Ø	270 †				2.5p$	PE†	u56	C	
31▼	BFS20	110m	450M§	1.0m	♦J	30	20	4.0	25m	100nØ	10Ø	7.0mØ	85 †				800f$	PE			
32▼	BSV52†	110m	500M†		♦J						1.0Ø	1.0mØ	25 Δ				4.0p$Ø				
33▼#	BFS17R	110m	1.0G§	1.1m	♦J	30	15	2.5	25m	10nØ	1.0Ø	2.0mØ	20 †Δ				1.5p$Ø	PE†	u56	C	
34▼	BFS17	110m	1.3G§	1.0m	♦J	25	15	2.5	25m	10nØ	1.0Ø	2.0mØ	150 †Ø				1.5p$Ø	PE			
35#	2SC29	115m	100M	909u	§J	40			25m	1.0uØ	10Ø	10m	30				4.0p	ME	TO5		
36	4D24	125m		1.2m	♦J	15	15	1.0	25m	1.0u	5.0Ø	10mØ	33 †#	200nb	50	2.0	4.0pØ	GDΔ	TO5	A	
37	4D25	125m		1.2m	♦J	15	15	1.0	25m	1.0u	5.0Ø	10mØ	88 †#	200nb	50	2.0	4.0pØ	GDΔ	TO5	A	
38	4D26	125m		1.2m	♦J	15	15	1.0	25m	1.0u	5.0Ø	10mØ	133 †#	200nb	50	2.0	4.0pØ	GDΔ	TO5	A	
39	D4D24	125m		1.2m	♦J	15	15	1.0	25m	1.0u	5.0Ø	10mØ	33 †#	200nb	50	2.0	4.0pØ	GDΔ	TO5		
40	D4D25	125m		1.2m	♦J	15	15	1.0	25m	1.0u	5.0Ø	10mØ	88 †#	200nb	50	2.0	4.0pØ	GDΔ	TO5		
41	D4D26	125m		1.2m	♦J	15	15	1.0	25m	1.0u	5.0Ø	10mØ	133 †#	200nb	50	2.0	4.0pØ	GDΔ	TO5		
42	KD5000	125m		2.0mØ	§J	20	10	2.0	15m	50mØ	1.0Ø	3.0mØ	20 †Δ				Ø	X72a	V		
43#	2S005	125m	30 Δ	1.0m	§J	40		1.0	20m	1.0uØ	20	1.0m	100	200nb	50	2.0	1.6p	GD	TO5		
44	2N1586	125m	5.0MΔ	2.0m	#S	15	10	1.0	25m	1.0u	5.0Ø	1.0mØ	9.0 Δ	1.5uØb	100 Ø	12 Ø	30pØ		OV9a	A	
45	2N1587	125m	5.0MΔ	2.0m	#S	30	20	1.0	25m	1.0u	5.0Ø	1.0mØ	9.0 Δ	1.5uØb	100 Ø	12 Ø	30pØ		OV9a	A	
46	2N1588	125m	5.0MΔ	2.0m	#S	60	40	1.0	25m	1.0u	5.0Ø	1.0mØ	9.0 Δ	1.5uØb	100 Ø	12 Ø	30pØ		OV9a	A	
47	2N1589	125m	5.0MΔ	2.0m	#S	15	10	1.0	25m	1.0u	5.0Ø	1.0mØ	25 Δ	1.5uØb	100 Ø	12 Ø	30pØ		OV9a	A	
48	2N1590	125m	5.0MΔ	2.0m	#S	30	20	1.0	25m	1.0u	5.0Ø	1.0mØ	25 Δ	1.5uØb	100 Ø	12 Ø	30pØ		OV9a	A	
49	2N1591	125m	5.0MΔ	2.0m	#S	60	40	1.0	25m	1.0u	5.0Ø	1.0m	25 Δ	1.5uØb	100 Ø	12 Ø	30pØ		OV9a	A	
50	2N1592	125m	5.0MΔ	2.0m	#S	15	10	1.0	25m	1.0u	5.0Ø	1.0m	70 Δ	1.5uØb	100 Ø	12 Ø	30pØ		OV9a	A	
51	2N1593	125m	5.0MΔ	2.0m	#S	30	20	1.0	25m	1.0u	5.0Ø	1.0m	70 Δ	1.5uØb	100 Ø	12 Ø	30pØ		OV9a	A	
52	2N1594	125m	5.0MΔ	2.0m	#S	60	40	1.0	25m	1.0u	5.0Ø	1.0m	70 Δ	1.5uØb	100 Ø	12 Ø	30pØ		OV9a	A	
53	2N264	125m	10.M			45			20m	1.0u	5.0	10mØ	20 †Δ					G	OV1		
54	2N337	125m	20M	1.0m	§J	45	30	1.0	20m	1.0uØ	20	1.0m	22	200nb	50	2.0	2.0p	GD	TO5	A	
55	JAN2N337†	125m	20MΔ	1.0m	§S	45	45	1.0	20m	1.0uØ	20	1.0m	20 Δ	1.0uØb	80 Ø	20 Ø	3.0pØ		TO5	A	
56	2N1104	125m	20MΔ	1.0m	§S	45	35	1.0	20m	1.0uØ†	20	1.0m	40 Δ	1.0uØb	80 Ø	20 Ø	3.0pØ		TO43	A	
57#	2S014	125m	20M	1.0m	§J	40		1.0	20m	1.0uØ	20	1.0m	65	200nb	50	3.0	1.6p	GD	R30		
58	TI493	125m	20M	1.2m	♦J	40	20	1.0	20m	2.0uØ	5.0Ø	10mØ	15 †Δ	200n	30	2.0	2.0p	G	TO5	A	
59	TI494	125m	20M	1.2m	♦J	40	20	1.0	20m	2.0uØ	5.0Ø	10mØ	40 †Δ	200n	30	2.0	2.0p	G	TO5	A	
60	TI495	125m	20M	1.2m	♦J	40	20	1.0	20m	2.0uØ	5.0Ø	10mØ	120 †Δ	200n	30	2.0	2.0p	G	TO5	A	
61	2N338	125m	30M	1.0m	§J	45	30	1.0	20m	1.0uØ	20	1.0m	24	200n	50	3.0	2.0p	GDØ	TO5	A	
62	JAN2N338†	125m	30MΔ	1.0m	§S	45	45	1.0	20m	1.0uØ	20	1.0m	40 Δ	1.0uØb	80 Ø	20 Ø	3.0pØ		TO5	A	
63	JAN3N35	125m	70M§Δ	714u	§S	30	30	1.0		50u	20Ø	1.3m	10 Δ					$	TO12	GA	
64	3N34	125m	100M	1.0m	§J	30	30	1.0	20m	.40uØ	20Ø	1.3m	25				1.5p	GD$	TO12	GA	
65▼	BSW69†	125m#	130M†		♦J						2.0Ø	4.0mØ	30 Δ				2.0p$				
66	3N35	125m	150M	1.0m	§J	30	30	1.0	20m	.40uØ	20Ø	1.3m	25				1.5p	GD$	TO12	GA	
67#	BFX45†	125m#	175M§Δ	1.7m	♦J	30	20	5.0	100m	.07u	0.0	3.0m	45 †Δ				3p$	PEØ	MM13	F	
68#	BSX68†	125m*	175M§Δ	1.7m	♦J	30	15	5.0	100m	.07u	0.0	10mØ	30 †Δ				3p$	PE	MM13	F	
69#	BSX69†	125m*	175M§Δ	1.7m	♦J	30	20	5.0	100m	.07u	0.0	10mØ	60 †Δ				3p$	PE	MM13	F	
70♦#	BSW33†	125m*	300M§	1.6m	♦J	40	32	5.0	100m	70nØ	0.0	10m	60 †Δ				3.0p$	PE†	MM13	F	
71♦#	BSW34†	125m*	300M§	1.6m	♦J	50	45	5.0	100m	70nØ	0.0	10m	60 †Δ				3.0p$	PE†	MM13	F	
72♦#	BSW35†	125m*	300M§	1.6m	♦J	60	60	5.0	100m	70nØ	0.0	10m	50 †Δ				3.0p$	PE†	MM13	F	
73#	BSW58†	125m*	400M§Δ	1.7m	♦J	40	15	5.0	500m#	.40uØ	1.0Ø	10mØ	40 †Δ				4pØ$	PE	MM13	F	
74#	BSW59†	125m*	500M§Δ	1.7m	♦J	30	12	5.0	500m#	.40uØ	1.0Ø	10mØ	60 †Δ				4pØ$	PE	MM13	F	
75#	BFS57P	125mØ	1.7G	1.0mØ	§A	25	13	3.0	50m	10nØ	6.0Ø	5.0mØ	20 Δ				1.0p$Ø	PE	u17c	E	
76	K5201C	125m	1.8G§Δ	1.0m	§J	25	12	2.5		.05uØ	1.0Ø	3.0mØ	20 †Δ				1pØ	E†Ø	u35		
77	KD5201	125m	1.8G§Δ	714u	§J	25	12	2.5		.05uØ	1.0Ø	3.0mØ	20 †Δ				1pØ	PEØ	X72	N	
78	KD5204	125m	1.8G§Δ	714u	§J	25	12	2.5		.05uØ	1.0Ø	3.0mØ	20 †Δ				1pØ	PEØ	X72		
79#	BFS58P	125mØ	2.4GØ	1.0mØ	§A	25	13	3.0	50m	20nØ	6.0Ø	5.0mØ	20 Δ				1.0p$Ø	PE	u17c	E	
80	2N1271	130m§		769u	§S	20		2.0	100m	.70u	10Ø	2.0mØ	20				1.5p	D	TO9	AØ	
81	2SC562	130m		1.0m	§J	40	30	4.0	25m		10	4.0m	40 †Δ				.22pt	PL	TO72		
82	BC155	130m	50M§Δ	1.3m	#J	5.0	5.0	5.0	50m	.10u	1.0Ø	.50mØ	85 Δ				8.0p	PE	u30		
83	A467	130m	350M§	1.0m	§J	40	30	4.0	25m	100nØ	10Ø	4.0m	60 †				1.1p	PLØ	TO72	J	
84	BF167	130m	350M§	1.0m	§J	40	30	4.0	25m		10Ø	4.0m	57					PL	TO72		
85	A480	130m	675M§	1.0m	§J	30	20	3.0	20m	.10uØ	10Ø	2.0m	13 †Δ					PLØ	TO72	J	
86	2SC645	140m	200M§		§J	30		5.0	30m	1.0uØ	10Ø	1.0mØ	100				1.5p	PE	R128		
87	2SC563	145m		1.2m	§J	40	25	4.0	25m		10	7.0m	.38 †Δ				.23pt	PE	TO72		
88#	2SC477	145m*	190M§	1.1m	§J	32	32	4.0	30m		10	10m	80					PLØ	TO18		
89#	BF115Δ	145m*	190M§	1.1m	§J	32	32	4.0	30m		10	1.0m	80					PLØ	TO18		
90	A418	145m	200M§	1.1m	§J	30	20	5.0	30m		10Ø	1.0mØ	35 †Δ				.65pt	PE	TO72	JØ	
91	A419	145m	200M§	1.1m	§J	30	20	5.0	30m		10Ø	1.0mØ	35 †Δ				.65pt	PE	TO72	JØ	
92	A420	145m	200M§	1.1m	§J	30	20	5.0	30m		10Ø	1.0mØ	35 †Δ				.65pt	PEØ	TO72	JØ	
93	2N4435	145m	220M	1.1m		30	20	5.0	30m		10Ø	1.0mØ	67 †					PE	TO72	A	
94#	BF185	145m	220M§	1.1m	§J	30	20	5.0	30m		10Ø	1.0mØ	34 †Δ				1.6p	PEØ	TO72		
95	A417	145m	250M§	1.1m	§J	30	20	5.0	30m		10Ø	1.0mØ	35 †Δ				.65pt	PEØ	TO72	JØ	
96	2N4434	145m	300M	1.1m		30	20	5.0	30m		10Ø	1.0mØ	115 †					PE	TO72	A	
97#	BF184	145m	300M§	1.1m	§J	30	20	5.0	30m		10Ø	1.0mØ	75 †Δ					PEØ	TO72		
98	2N1269	150m§		769u	§S	20		2.0	100m	.70u	10Ø	2.0mØ	50				1.5p	D	TO9	AØ	
99	2N2349	150m		1.2m	§J	40	24	1.5	25m	1.0uØ	5.0Ø	10mØ	120 †Δ	1.2uØb	90 Ø	20 Ø	4.0pØ	G	TO5	A	
100	2N2610	150m		1.2m		45	40	1.0	25m	2.0uØ	5.0Ø	1.0mØ	9.0 Δ	1.2uØb	55	5.0 Ø			OV9		
101♦	2N5650	150m		1.2m	§S	20	15	3.0	30m	50nØ	10Ø	3.0mØ	30 †Δ				700f$Ø	Ø	TO72	G	
102♦	2N5651	150m		1.2m	§S	20	15	3.0	30m	50nØ	10Ø	3.0mØ	30 †Δ				700f$Ø	Ø	TO72	G	
103♦	2N5652	150m		1.2m	§S	20	15	3.0	30m	50nØ	10Ø	3.0mØ	30 †Δ				700f$Ø	Ø	TO72	G	
104#	2SC640	150m			§J	30	25	5.0	100m	.10u	3.0Ø	.50mØ	300 †					PE	u23a	C	
105#	BFV16	150m		1.2m	§J	100		3.0			10Ø	30mØ	20 Δ					PL	u34b	P	
106#	BFV51†	150m		1.2m	§J	60	30	5.0	800m	.50uØ	10Ø	150mØ	50 †Δ				8pØ	PE	u34b	P	
107#	BFV53†	150m		1.2m	§J	60	30	5.0	800m	.50uØ	10Ø	150mØ	50 †Δ				8pØ	PE	u34b	P	
108#	BFV60	150m		1.0m	§J	30	30	5.0	30m	.05uØ	5.0Ø	.10mØ	100 Δ				8pØ	PEØ	u34b	P	
109#	BFV61	150m		1.0m	§J	30	30	5.0	30m	.05uØ	5.0Ø	.10mØ	100 Δ				8pØ	PEØ	u34b	P	
110#	BFV62	150m		1.2m	§J	60	50	6.0	50m	.05uØ	5.0Ø	.10mØ	100 Δ				6pØ	PEØ	u34b	P	

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	D4D20†	150m		1.2m	$J	40	24	1.5	25m	1.0uØ	5.0Ø	10mØ	50 †☑	200nb	50	2.0	4.0p☑	GD	R133b	A
2	D4D21†	150m		1.2m	$J	40	24	1.5	25m	1.0uØ	5.0Ø	10mØ	135 †☑	200nb	50	2.0	4.0p☑	GD	R133b	A
3#	PL1021	150m		1.0m	§S	40	15	4.5		.4uØ§	1.0Ø	10mØ	20 †Δ				4p☑	PEΔ	u50	E
4#	PL1022	150m		1.0m	§S	40	15	4.5		.4uØ§	1.0Ø	10mØ	40 †Δ				4p☑	PEΔ	u50	E
5#	PL1023	150m		1.0m	§S	40	15	4.5		.4uØ§	.35Ø	10mØ	40 †Δ				4p☑	PEΔ	u50	E
6#	PL1024	150m		1.0m	§S	20	12	5.0		1.0u§	.35Ø	10mØ	20 †Δ				5p☑	PEΔ	u50	E
7#	PL1025	150m		1.0m	§S	20	12	5.0		1.0u§	.35Ø	10mØ	40 †Δ				5p☑	PEΔ	u50	E
8#	PL1026	150m		1.0m	§S	30	12	5.0		.4uØ§	.35Ø	10mØ	30 †Δ				4p☑	PEΔ	u50	E
9#	PL1051	150m		1.0m	§S	60	30	5.0		10nØ	10Ø	1.0mØ	25 †Δ				8p☑	PEΔ	u50	E
10#	PL1052	150m		1.0m	§S	75	40	6.0		10nØ	10Ø	1.0mØ	25 †Δ				8p☑	PEΔ	u50	E
11#	PL1053	150m		1.0m	§S	60	30	5.0		10nØ	10Ø	1.0mØ	50 †Δ				8p☑	PEΔ	u50	E
12#	PL1054	150m		1.0m	§S	75	40	6.0		10nØ	10Ø	1.0mØ	50 †Δ				8p☑	PEΔ	u50	E
13#	PL1055	150m		1.0m	§S	60	30	5.0		10nØ	10Ø	1.0mØ	12 †Δ				8p☑	PEΔ	u50	E
14#	PL1061	150m		1.0m	§S	45	45 *	5.0			5.0Ø	10uØ	40 †Δ				8p☑	PL	u50	E
15#	PL1062	150m		1.0m	§S	45	45 *	5.0			5.0Ø	10uØ	100 †Δ				8p☑	PL	u50	E
16#	PL1063	150m		1.0m	§S	60	60 *	6.0			5.0Ø	10uØ	100 †Δ				6p☑	PL	u50	E
17#	PL1064	150m		1.0m	§S	25	25 *	5.0			5.0Ø	10uØ	180 †Δ				8p☑	PL	u50	E
18#	PL1065	150m		1.0m	§S	60	60 *	6.0			5.0Ø	10uØ	40 †Δ				6p☑	PL	u50	E
19#	PL1066	150m		1.0m	§S	25	25 *	5.0			5.0Ø	10uØ	40 †Δ				8p☑	PL	u50	E
20#	PL1067	150m		1.0m	§S	25	25 *	5.0			5.0Ø	10uØ	100 †Δ				8p☑	PL	u50	E
21#	PL1081	150m		1.0m	§S	60	40 §*	5.0			10Ø	150mØ	20 †Δ#					PL	u50	E
22#	PL1082	150m		1.0m	§S	60	40 §*	5.0			10Ø	150mØ	40 †Δ#					PL	u50	E
23#	PL1083	150m		1.0m	§S	75	50 §*	7.0			10Ø	150mØ	100 †Δ#					PL	u50	E
24#	PL1084	150m		1.0m	§S	75	50 §*	7.0			10Ø	150mØ	40 †Δ#					PL	u50	E
25#	PL1085	150m		1.0m	§S	120	100 §*	7.0			10Ø	150mØ	40 †Δ#					PL	u50	E
26#	PL1111	150m		1.0m	§S	30	15	3.0		1nØ	1.0Ø	3.0mØ	20 †Δ				1.7p☑	PE	u50	E
27#	PL1112	150m		1.0m	§S	30	15	3.0		10nØ	1.0Ø	3.0mØ	20 †Δ				1.7p☑	PE	u50	E
28#	PL1113	150m		1.0m	§S	30	13	3.0		10nØ	10Ø	4.0mØ	20 †Δ				2.5p☑	PE	u50	E
29	JAN2N117	150m	1.0MΔ	1.2m	$S	30		1.0		1.0u	5.0	1.0m	9.0 Δ	1.5u☑b	90 ☑	5.0 ☑	20 ☑		OV6	F
30	JAN2N118	150m	2.0MΔ	1.2m	$S	30		1.0		1.0u	5.0	1.0m	18 Δ	1.5u☑b	90 ☑	10 ☑	20 ☑		OV6	F
31	JAN2N119	150m	2.0MΔ	1.2m	$S	30		1.0		1.0u	5.0	1.0m	37 Δ	1.5u☑b	90 ☑	15 ☑	20p☑		OV6	F
32	JAN2N333	150m	2.5MΔ	1.0m	§S	45	45	1.0		500nØ	5.0	1.0m	44 ☑	1.2u☑b	80 ☑	10 ☑	15p☑		TO5	
33	JAN2N335	150m	2.5MΔ	1.0m	§S	45	45	1.0		500nØ	5.0	1.0m	90 ☑	1.2u☑b	80 ☑	10 ☑	15p☑		TO5	A
34	JAN2N336	150m	2.5MΔ	1.0m	§S	45	45	1.0		500nØ	5.0	1.0m	270 ☑	1.2u☑b	80 ☑	10 ☑	15p☑		TO5	A
35	2N3268	150m	2.5MΔ	1.0m	§S	45	45	1.0	25m	500nØ	5.0	1.0m	40 Δ	1.2u☑b	80 ☑	10 ☑	15p☑		TO5	A
36	2N117	150m	4.0M	1.0m	§S	45		1.0	25m	2.0uØ	5.0	1.0m	15	400nb	42	1.2	7.0p	G	OV6	
37	2N160	150m	4.0M	1.0m	S	40		1.0	25m	10u	5.0	1.0m	15	400nb			7.0p	A	OV9	
38	2N160A	150m	4.0M	1.0m	S	40		5.0	25m	10u	5.0	1.0m	15	400nb			7.0p	A	OV9	
39#	2S001	150m	4.0MΔ	769u	§J	45		1.0	25m	30nØ	5.0	1.0m	14	400nb	42	12	7.0p	G	TO5	
40#	2S002	150m	4.0MΔ	769u	§J	45		1.0	25m	30nØ	5.0	1.0m	25	400nb	42	2.5	7.0p	G	TO5	
41#	2S004	150m	4.0MΔ	769u	§J	45		1.0	25m	30nØ	5.0	1.0m	50	400nb	42	40	7.0p	G	TO5	
42	2N118	150m	5.0M	1.0m	§J	45		1.0	25m	2.0uØ	5.0	1.0m	29	400nb	42	2.5	7.0p	G	OV6	
43	2N161	150m	5.0M	1.0m	S	40		1.0	25m	10u	5.0	1.0m	30	400nb			7.0p	A	OV9	
44	2N161A	150m	5.0M	1.0m	S	40		5.0	25m	10u	5.0	1.0m	30	400nb			7.0p	A	OV9	
45	2N119	150m	6.0M	1.0m	§J	45		1.0	25m	2.0uØ	5.0	1.0m	63	400nb	42	4.0	7.0p	G	OV6	
46	2N163	150m	6.0M	1.0m	S	40		1.0	25m	10u	5.0	1.0m	78				7.0p	A	OV9	
47	2N163A	150m	6.0M	1.0m	S	40		5.0	25m	10u	5.0	1.0m	78				7.0p	A	OV9	
48	2N332	150m	6.0M	1.0m	§J	45		1.0	25m	2.0uØ	5.0	1.0m	15	500nb	55	2.0	7.0p	GD	TO5	A
49	2N120	150m	7.0M	1.0m	§J	45		1.0	25m	2.0uØ	5.0	1.0m	200	400nb	42	4.0	7.0p	G	OV6	
50	2N118A	150m	8.0M	1.0m	§S	45		1.0	25m	2.0uØ	5.0	1.0m	90 ☑	1.2u☑b	80 ☑	10 ☑	20p☑		OV6	A
51	2N162	150m	8.0M		§J	40		1.0	25m	10u	5.0Ø	1.0mØ	28 Δ						TO22	F
52	2N162A	150m	8.0M		§J	40		5.0	25m	10u	5.0Ø	1.0mØ	28 Δ						TO22	F
53	2N333	150m	8.0M	1.0m	§J	45		1.0	25m	2.0uØ	5.0	1.0m	29	500nb	55	3.7	7.0p	GD	TO5	A
54	TI492	150m	8.0M	1.4m	♦J	40	20	1.0	25m	2.0uØ	5.0Ø	1.0m	30	500nb	55	3.7	10p	G	TO5	A
55	2N334	150m	10M	1.0m	§J	45		1.0	25m	2.0uØ	5.0	1.0m	54	500nb	55	3.5	7.0p	GD	TO5	A
56#	2S003	150m	10MΔ	769u	§J	45		1.0	25m	30nØ	5.0	1.0m	25	400nb	42	20	7.0p	G	TO5	
57#	BCY87*	150m	10M§Δ	1.0m	§J	45	40	5.0	30m	5.0nt☑	10	50nØ	100 †Δ				3.5p$	PLØ	L17u	
58#	BCY88*	150m	10M§Δ	1.0m	§J	45	40	5.0	30m	25nt☑	10	.05mØ	100 †Δ				3.5p$	PL*Ø	L17u	
59#	BCY89*	150m	10M§Δ	1.0m	§J	45	40	5.0	30m	.01uØ	10	.05mØ	100 †Δ				3.5p$	PL*Ø	L17u	
60	2N335	150m	11M	1.0m	§J	45		1.0	25m	2.0uØ	5.0	1.0m	63	300nb	55	6.0	10p	GD	TO5	A
61	2N1149	150m	12M	1.0m	§S	45		1.0	25m	2.0uØ	5.0	1.0m	13	400nb	42	1.2	7.0p	G	OV9	
62	4C28	150m	12M	1.4m	♦J	40	30	2.0	25m	2.0uØ	5.0Ø	1.0m	15 †	200nb	50	3.0	8.0p	GD	R133b	A
63	4C29	150m	12M	1.4m	♦J	40	30	2.0	25m	2.0uØ	5.0Ø	1.0m	30 †	200nb	50	3.0	8.0p	GD	R133b	A
64	4C30	150m	12M	1.4m	♦J	40	30	2.0	25m	2.0uØ	5.0Ø	1.0m	55 †	200nb	50	3.0	8.0p	GD	R133b	A
65	4C31	150m	12M	1.4m	♦J	40	30	2.0	25m	2.0uØ	5.0Ø	1.0m	115 †	200nb	50	3.0	8.0p	GD	R133b	A
66	D4C28	150m	12M	1.4m	♦J	40	30	2.0	25m	2.0uØ	5.0Ø	1.0m	15 †	200nb	50	3.0	8.0p	GD	R133b	A
67	D4C29	150m	12M	1.4m	♦J	40	30	2.0	25m	2.0uØ	5.0Ø	1.0m	30 †	200nb	50	3.0	8.0p	GD	R133b	A
68	D4C30	150m	12M	1.4m	♦J	40	30	2.0	25m	2.0uØ	5.0Ø	1.0m	55 †	200nb	50	3.0	8.0p	GD	R133b	A
69	D4C31	150m	12M	1.4m	♦J	40	30	2.0	25m	2.0uØ	5.0Ø	1.0m	115 †	200nb	50	3.0	8.0p	GD	R133b	A
70	2N336	150m	13M	1.0m	§J	45		1.0	25m	2.0uØ	5.0	1.0m	200	250nb	55	7.0	7.0p	GD	TO5	A
71	2N1150	150m	13M	1.0m	§S	45		1.0	25m	2.0uØ	5.0	1.0m	24	400nb	42	2.5	7.0p	G	OV9	
72	2N1151	150m	14M	1.0m	§J	45		1.0	25m	2.0uØ	5.0	1.0m	39	400nb	42	4.0	7.0p	GD	OV9	
73	2N1152	150m	15M	1.0m	§J	45		1.0	25m	2.0uØ	5.0	1.0m	49	400nb	42	4.0	7.0p	GD	OV9	
74	2N1309A	150m	15.MΔ	2.5m	#J	35		35	300m	6.0uØ	1.0Ø	10mØ	80 †Δ				20p☑	Δ	TO5	A§
75	2N1153	150m	16M	1.0m	§J	45		1.0	25m	2.0uØ	5.0	1.0m	99	400nb	42	4.0	7.0p	GD	OV9	
76	2N1205	150m	17M§Δ		§A	20	20	1.0		5.0u	10Ø	2.0m	10 Δ				5.0p		TO5	
77	2N263	150m	20M	1.2m	$S	45	30	1.0	20m	1.0uØ	20	1.0m	30 Δ	1.0u☑b	80 ☑	20 ☑	3.0 ☑		OV9a	A
78#	BFV37Ø	150m	20M§Δ	1.2m	§S	30	30	15	100m	.01uØ	5.0Ø	1.0mØ	50 Δ				12p☑	PE	u34b	P
79#	BFV38Ø	150m	20M§Δ	1.2m	§S	45	45	18	100m	.01uØ	5.0Ø	1.0mØ	50 Δ				12p☑	PE	u34b	P
80	2N1276	150m	30M	1.2m	$J	40	30	1.0	25m	1.0u	5.0	1.0m	14	370nb	44	2.4	2.0p	GD	TO5	A
81	2N1277	150m	30M	1.2m	$J	40	30	1.0	25m	1.0u	5.0	1.0m	33	300nb	44	2.6	2.0p	GD	TO5	A
82	2N1278	150m	30M	1.2m	$J	40	30	1.0	25m	1.0u	5.0	1.0m	66	180nb	44	2.3	2.0p	GD	TO5	A
83#	2SC267	150m	30M§Δ		$J	35	20	5.0	200m	1.0uØ	1.0Ø	20mØ	40 †Δ				10p☑	PE	u23a	C
84	TIS22	150m	30M§Δ	1.5m	♦J	45	45	6.0	50m	.01u	5.0Ø	.01mØ	40 †Δ	40u☑	11 ☑	8 ☑	6p☑	PØ	X16	
85	TIS23	150m	30M§Δ	1.5m	♦J	45	45	6.0	50m	.01u	5.0Ø	.01mØ	100 †Δ	60u☑	18 ☑	8 ☑	6p☑	PØ	X16	
86	2N1279	150m	34M	1.2m	$J	40	30	1.0	25m	1.0u	5.0	1.0m	333	140nb	44	2.0	2.0p	GD	TO5	A
87	2N1417	150m	34M§	1.2m	$A	15	15	2.0		10u	6.0Ø	1.0m	60	330nb	50	2.5	1.5p		TO5	A
88	2N1418	150m	34M§	1.2m	$A	30	30	2.0		1.0u	6.0Ø	1.0m	60	330nb	50	2.5	1.5p		TO5	A
89#	BFV14	150m	50M§Δ	1.0m	§J	60	40	5.0	1	1.0uØ	10Ø	150mØ	40 †Δ				35p☑	DPL	u34b	P
90	2N3128	150m	60M§Δ	1.1m	$J	20	20	5.0	100m	10nØ	5.0Ø	10uØ	25 †Δ	40u☑b	1.0 ☑	6.0 ☑	6.0p☑	P	X16	
91	2N3129	150m	60M§Δ	1.1m	$J	45	45	6.0	100m	10nØ	5.0Ø	10uØ	100 †Δ	40u☑b	1.0 ☑	6.0 ☑	6.0p☑	P	X16	
92	2N3130	150m	60M§Δ	1.1m	$J	60	60	8.0	100m	10nØ	5.0Ø	10uØ	60 †Δ	40u☑b	1.0 ☑	6.0 ☑	6.0p☑	P	X16	
93	2N3247	150m	60M	1.2m	$A	60	45	10	50m	1.0n	5.0Ø	1.0uØ	150 †Δ	1.0u☑b	28	6.0 ☑	5.0p☑	PLØ	X16	
94#	BFV17	150m	60M§Δ	1.0m	§J	80	60	5.0		1.0uØ	5.0Ø	5.0m	30 †Δ	65u	1.5k☑	1.1	10p☑	PE	u34b	P
95	TIS24	150m	60M§Δ	1.5m	♦J	60	60	6.0	50m	.01u	5.0Ø	.01mØ	100 †Δ	100u☑	30 ☑	8 ☑	6p☑	PØ	X16	
96#	2SC182	150m	90.M§		§J	25	20 §	5.0	150m	1.0uØ	1.0Ø	20mØ	80 †				6.5p	PE	u23a	C
97#	2SC268	150m	90.M§		§J	60	60 Ø	5.0	30m	5.0uØ	1.0Ø	1.0mØ	40 †				6.5p	PE	u23a	C
98#	2SC268A	150m	90.M§		§J	80		5.0	30m	2.0uØ	1.0Ø	1.0mØ	40 †				1.6p	PE	u23a	C
99#	2SC475	150m	100M§		§J	20	15	5.0	100m	.10uØ	3.0Ø	.50mØ	300 †	3.5u	15k	18		PE	u23	C
100#	2SC476	150m	100M§		§J	20	15	5.0	100m	.10uØ	3.0Ø	.50mØ	350 †	3.8u	15k	20		PE	u23	C
101#	2SC540	150m	100M§		§J	30	20	5.0	100m	.10uØ	3.0Ø	.50mØ	270 †	3.0u	15k	16		PE	u23	C
102▼#	2SC780A/G	150m	100M§		♦J	150	150	2.0	30m	5.0uØ	2.0Ø	2.0mØ	50 †				7.0p☑	DPL	R67a	B
103	BSY11	150m$	100M§	1.0m	§J	45			50m		5.0	5.0mØ	55 Δ					ME	TO5	
104	CS2639*	150m	100M§Δ	1.2m	$J	45	45	5.0	30m	.01u	5.0Ø	1.0mØ	65 †Δ					DPLØ	L2r	
105	CS2640*	150m	100M§Δ	1.2m	$J	45	45	5.0	30m	.01u	5.0Ø	1.0mØ	65 †Δ					DPLØ	L2r	
106	CS2641*	150m	100M§Δ	1.2m	$J	45	45	5.0	30m	10n	5.0Ø	1.0mØ	65 Δ	1.0u☑b	32 ☑	6.0 ☑	8.0p☑	DPLØ	L2r	
107	CS2642*	150m	100M§Δ	1.2m	$J	45	45	5.0	30m	10n	5.0Ø	1.0mØ	130 Δ	1.0u☑b	32 ☑	6.0 ☑	8.0p☑	DPL*	L2r	
108	CS2643*	150m	100M§Δ	1.2m	$J	45	45	5.0	30m	10n	5.0Ø	1.0mØ	130 Δ	1.0u☑b	32 ☑	6.0 ☑	8.0p☑	DPL*	L2r	
109	CS2644*	150m	100M§Δ	1.2m	$J	45	45	5.0	30m	10n	5.0Ø	1.0mØ	130 Δ	1.0u☑b	32 ☑	6.0 ☑	8.0p☑	DPLØ	L2r	
110	CS29008*	150m	100M§Δ	1.2m	$J	75	45	6.0	30m	10nØ	5.0Ø	1.0mØ	65 Δ	1.0u☑b	32 ☑	6.0 ☑	4.0p☑	DPL*	L2r	

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 DERATE IN FREE AIR W/°C	fab (Hz)	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	CS29009*	150m	1.2m	100M§Δ	§J	75	45	6.0	30m	10nØ	5.0Ø	1.0mØ	65 Δ	1.0uØb	32 Ø	6.0 Ø	4.0pØ	DPLØ	L2r	
2	CS29010*	150m	1.2m	100M§Δ	§J	75	45	6.0	30m	10nØ	5.0Ø	1.0mØ	65 Δ	1.0uØb	32 Ø	6.0 Ø	4.0pØ	DPLØ	L2r	
3	CS29011*	150m	1.2m	100M§Δ	§J	75	45	6.0	30m	10nØ	5.0Ø	1.0mØ	120 †Δ	1.0uØb	32 Ø	6.0 Ø	4.0pØ	DPL*	L2r	
4	CS29012*	150m	1.2m	100M§Δ	§J	75	45	6.0	30m	10nØ	5.0Ø	1.0mØ	120 †Δ	1.0uØb	32 Ø	6.0 Ø	4.0pØ	DPL*	L2r	
5	CS29013*	150m	1.2m	100M§Δ	§J	75	45	6.0	30m	10nØ	5.0Ø	1.0mØ	120 Δ	1.0uØb	32 Ø	6.0 Ø	4.0pØ	DPLØ	L2r	
6▼#	ZDT30Ø	150m	1.2m	100M§	§J	10		6.0	50m	10nØ								PE	TO72	GC
7▼#	ZDT31Ø	150m	1.2m	100M§	§J	10		6.0	50m	10nØ								PE	TO72	GC
8	2N1199	150m	1.2m	125M§	§S	20		3.0	100m	10u	1.0Ø	20m	25 †				1.2p	DΔ	TO9	AØ
9	2N1472	150m	1.2m	140M§	§S	25		3.0	100m	5.0u	5.0Ø	10m	35				1.0p	MDΔ	TO9	AØ
10▼	2N2048†	150m	2.0m	150M§Δ	#S	20	15	2.0	100m	5.0uØ	.5ØØ	10mØ	50 †Δ				3.0pØ		TO9	A
11#	2SC621†	150m	1.2m	150M§	§J	25	15	4.0	100m	1.0u	6.0Ø	10mØ	75 †#	15u	2.5k	.40	2.5p	PE	R126	A
12#	2SC622	150m	1.2m	150M§	§J	25	15	4.0	100m	1.0u	6.0Ø	10mØ	75 †#				2.5p	PE	R126	
13♦#	2SC644	150m	1.4m	150M§	♦J	25	25	5.0	50m	1.0uØ	5.0	1.0m	350	20u	40k	2.5	5.0p	PEØ	u55	B
14#	2SC828	150m	1.5m	150M§	♦J	30	25	5.0	100m	1.0uØ	5.0	2.0m	250 †				5.0p	PE	TO92	
15#	2SC828A	150m	1.5m	150M§	♦J	45	45	5.0	100m	1.0uØ	5.0	2.0m	250 †				5.0p	PE	TO92	
16#	2SC912†	150m	1.2m	150M§	§J	30	25	4.0	100m	1.0u	6.0Ø	10mØ	90 †#	15u	2.5k	.35	2.5p	PE	R126	A
17▼#	2SC920	150m		150M§Δ	§J	50	25	5.0	30m	100n	3.0Ø	500uØ	75 †				2.5pØ	PE	u23a	C
18#	BFS29P	150m	1.2m	150M	§	45	45	5.0	200m	20n	15Ø	100mØ	40 †Δ				5.0p	PE	u17c	E
19#	BFS30P	150m	1.2m	150M	§	45	45	5.0	200m	20n	15Ø	100uØ	60 †Δ				5.0p	PE	u17c	E
20#	BFS31P	150m	1.2m	150M	§	45	30	5.0	200m	20n	15Ø	100uØ	80 †Δ				5.0p	PE	u17c	E
21#	BFV18	150m	1.0m	150M§Δ	§J	80	60	5.0		1.0uØ	5.0Ø	5.0m	60 †Δ	95u	1.8kØ	1.3	10pØ	PE	u34b	P
22#	BFV50†	150m	1.2m	175M§Δ	§J	50	25	5.0	800m	.50uØ	10Ø	150mØ	30 †Δ				12pØ	PE	u34b	P
23#	BFV52†	150m	1.2m	175M§Δ	§J	50	30	5.0	1	.50uØ	1.0Ø	150mØ	25 †Δ				12pØ	PE	u34b	P
24#	BFV55†	150m	1.2m	175M§Δ	§S	75	40	5.0	500m	.50uØ	1.0Ø	150mØ	25 †Δ				12pØ	PE	u34b	P
25#	BFV10	150m	1.0m	200M§Δ	§J	50	30	5.0	800m	.05uØ	10Ø	10mØ	30 †Δ				12pØ	PE	u34b	P
26#	BFV11	150m	1.0m	200M§Δ	§J	50	30	5.0	800m	.05uØ	10Ø	10mØ	70 †Δ				12pØ	PE	u34b	P
27#	BFV40	150m	1.0m	200M§Δ	§J	25	18	5.0		.50uØ	1.0Ø	10mØ	20 †Δ				6pØ	PEΔ	u34b	P
28#	BFV49†	150m	1.2m	200M§Δ	§J	25	15	5.0	200m	.50uØ	1.0Ø	10mØ	30 †Δ					PE	u34b	P
29	BSX53†	150m	1.3m	200M§Δ	§A						1.0Ø	50mØ	50 Δ				5.0p	NPE	TO18	
30	BSX54†	150m	1.3m	200M§Δ	§A						1.0Ø	50mØ	50 Δ				5.0p	NPE	TO18	
31#	BSY95	150m	1.0m	200M§Δ	§J	20	15	5.0	100m	.05uØ		10mØ	50 †Δ				6pØ	PEΔ	TO18	AØ
32	NS6203	150m	1.2m	200M§Δ	§J	30	30	5.0		.02uØ	10Ø	10mØ	100 †Δ				8pØ	PE	X16	
33#	2SC829	150m	1.5m	230M§	♦J	30	20	5.0	30m	10u	10	1.0m	40 †Δ				1.3pt	PE	TO92	B
34♦	BF115Ø	150m*	2.0m	230M§	§J	50	30	5.0	30m		10Ø	1.0mØ	165 Øt				650ft	PE	TO72	J
35#	2SC33	150m		250M§	§J	45	20	3.0	50m	.10u	10Ø	5.0m	55				3.0p	PE	TO5	
36#	BFV12	150m	1.0m	250M§Δ	§J	60	35	5.0	800m	.05uØ	10Ø	1.0mØ	40 †Δ				10pØ	PE	u34b	P
37#	BFV41	150m	1.0m	250M§Δ	§J	20	12	4.5	200m	1.0u§	.35Ø	10mØ	30 †Δ				5pØ	PEΔ	u34b	P
38#	BFV45	150m	1.2m	250M§Δ	§J	35	15	5.0		.08uØ	1.0Ø	10mØ	30 †Δ				5pØ	PEΔ	u34b	P
39#	BFV54†	150m	1.2m	250M§Δ	§J	60	30	5.0		.50u§	10Ø	150mØ	30 †#Δ				8pØ	PE	u34b	P
40#	BFV43†	150m	1.2m	300M§Δ	§J	30	12	4.0	200m	.50u§	1.0Ø	30mØ	30 †Δ				5pØ	PE	u34b	P
41#	BFV44†	150m	1.2m	300M§Δ	§J	30	15	4.0	200m	.50u§	1.0Ø	30mØ	30 †Δ				5pØ	PE	u34b	P
42#	BFV46†	150m	1.2m	300M§Δ	§J	35	15	5.0		.08uØ	1.0Ø	100mØ	30 †Δ				5pØ	PE	u34b	P
43#	2SC739	150m	1.5m	350M§	♦J	25	12	4.0	20m	1.0uØ	6.0Ø	1.0mØ	60 †#				1.5p	PEt	TO92	D
44	2N3493	150m	833u	400M§Δ	§J	12	8.0	5.0	25m	5n#	.50Ø	.50mØ	40 †Δ				.7pØ	Δ	R96d	G
45#	2SC269†	150m	1.2m	400M§Δ	§J	25	20 Ø	5.0	150m	1.0uØ	1.0Ø	10mØ	90 †				3.5p	PE	u23a	C
46#	2SC659	150m	1.2m	400M§	§J	25	12	4.0	20m	1.0uØ	6.0Ø	1.0mØ	60 †#				1.5p	PE	R126	
47#	2SC738	150m	1.5m	400M§	♦J	25	12	4.0	20m	1.0uØ	6.0Ø	1.0mØ	60 †#				1.5p	PEt	TO92	D
48#	BF207	150m	1.0m	400M§	§J	40	30	4.0	25m	.10uØ	10Ø	4.0mØ	80 †				.15pt	PL	TO72	G
49▼#	BF252	150m	1.0m	400M§	§J	40	40	4.0		100n§	10Ø	2.0mØ	30 †Δ					DPL	TO72	
50#	BFV42†	150m	1.2m	400M§Δ	§J	35	15	4.5	200m	.40uØ	1.0Ø	10mØ	30 †Δ				4pØ	PE	u34b	P
51#	BFV47	150m	1.2m	400M§Δ	§J	30	12	5.0	200m	.40u§	.35Ø	10mØ	30 †Δ				4pØ	PE	u34b	P
52#	BSV53P†	150m	1.2m	400M	§						1.0Ø	10mØ	40 †Δ				4.0p		u17c	E
53#	BSV54P†	150m	1.2m	400M	§						1.0Ø	10mØ	20 †Δ				4.0p		u17c	E
54	NPC167	150m	1.0m	400M§	§S	40	30	4.0	25m	.01u	10Ø	4.0mØ	57				1.3p	PLØ	TO72	J
55	NS6213	150m	1.1m	400M	§J	25	15	4.0	100m	.50u	.01Ø	5.0mØ	20					P	X16	
56#	PL4021†	150m	1.0m	400M§Δ	§S	40	15 *	4.5	200m	.40uØ	1.0Ø	10mØ	20 †Δ				4pØ	PE	u51	
57▼#	2SC921	150m		450M§Δ	§J	25	12	4.0	10m	100n	3.0Ø	500uØ	65 †				1.5pØ	PE	u23a	C
58#	2SC605	150m		480M§	§J	30	30	4.0	20m	.20uØ	10Ø	2.0mØ	60 †				1pØ	PL	u23a	C
59#	2SC389	150m	1.2m	500M§	§J	20	15	3.0	20m	.10u	5.0Ø	4.0m	50				1pØ	PL	TO72	
60#	2SC657	150m		500M§	§S	18	18	3.0	30m	.20uØ	10Ø	4.0mØ	50 †				1.1p	D	u37	
61▼#	BF288	150m	1.0m	500M§	§J	40	40	4.0	20m	50n§	7.0Ø	1.0mØ	65 †Δ					DPE	TO72	
62#	BFV27†	150m	1.2m	500M§Δ	§J	15	6.0	4.0		.10uØ	1.0Ø	30mØ	15 †#Δ				3pØ	PE	u34b	P
63#	BFV28†	150m	1.7m	500M§Δ	§J	15	6.0	4.0	50m	10u§	.40Ø	1.0mØ	15 †#Δ				3pØ	PE	u34b	P
64#	BFV80	150m	1.2m	500M§Δ	§J	25	12	3.0	50m	.50uØ	1.0Ø	3.0mØ	20 †Δ				1.7p	PEØ	u34b	P
65#	PL4022†	150m	1.0m	500M§Δ	§S	40	15 *	4.5	200m	.40uØ	1.0Ø	10mØ	40 †Δ				4pØ	PE	u51	
66#	PL4023†	150m	1.0m	500M§Δ	§S	40	15	4.5	200m	.40u§	1.0Ø	100mØ	20 †Δ#				4pØ	PE	u51	
67#	2SC606	150m		530M§	§J	30	30	4.0	20m	.20uØ	10Ø	2.0mØ	60 †				1pØ	PL	u23a	C
68#	2SC382	150m	1.4m	550M§	♦J	40			50m	500nØ	10Ø	4.0m	80				1.6pØ	PE	R67a	B
69#	2SC463H	150m		550M§		35	35	4.0	20m	100u	10Ø	2.0mØ	5.5				.6pØ	PEØ		
70#	2SC658	150m	1.2m	550M§	§J	25	12	4.0	20m	1.0uØ	6.0Ø	1.0mØ	60 †#				1.5p	PE	R126	
71#	BF200	150m	1.0m	550M§	§J	30	20	3.0	20m		10Ø	3.0mØ	16 Δ				.90p	PLØ	TO72	G
72#	BF303	150m	1.0m	550M		40	30	3.0	50m		6.0Ø	1.0mØ	140					PL	TO72	
73#	BF304	150m	1.0m	550M		40	30	3.0	50m		10Ø	1.0mØ	30 Δ					PL	TO72	
74#	2SC287A	150m		600M§Δ	§J	35	15	4.0	20m	.20uØ	10Ø	5.0mØ	80 †				1pØ	PE	u23	C
75#	2SC382G	150m	1.5m	600M§	♦J	40		2.0	50m	.50uØ	10Ø	4.0mØ	30 †Δ				1.5p	PEt	RO67a	B
76#	2SC382R	150m	1.5m	600M§	♦J	40		2.0	50m	.50uØ	10Ø	4.0mØ	30 †Δ				1.5p	PEt	RO67a	B
77#	2SC762	150m	1.0m	600M§	§J	30	20	3.0	20m	100u#	10	2.0m	13 †Δ				280ft	PLØ	TO72	G
78#	2SC997	150m		600M§	§J	40	30		25m	25nØ	10Ø	4.0mØ	70 †				1.5p	PL	TO72	G
79	A481	150m	1.0m	600M§	§J	30	20	3.0	20m								.28p	PLtØ	TO72	
80	BF181	150m	1.0m	600M§	§J	30	20	3.0	20m								.28pt	PLØ	TO72	
81▼#	BF251	150m	1.0m	600M§	§J	30	30	4.0		50n§	10Ø	4.0mØ	30 †Δ					DPL	TO72	
82#	BF302	150m	1.0m	600M		40	30	3.0	50m		6.0Ø	1.0mØ	140					PL	TO72	
83#	BFV59	150m	1.3m	600M§Δ	§S	25	13	3.0	50m	.05uØ	10Ø	4.0mØ	20 Δ				2.5p	PEØ	u34b	P
84#	BFW63	150m	1.0m	600M§	§J	40	30	4.0		.5uØ§	10Ø	4.0mØ	70 †#				.2pt	DPLØ	TO72	J
85#	PL4112	150m	1.0m	600M§Δ	§S	30	15	3.0	200m	10nØ	1.0Ø	3.0mØ	20 †Δ				2.0pØ	PEØ	u51	
86#	2SC707	150m		650M§		20	20	3.0	20m	100u	10Ø	2.0mØ	50 †				.40p	PØ		
87#	2SC707H	150m		650M§		20	20	2.0	20m	100u	10Ø	2.0mØ	50 †				.40p	PØ		
88#	2SC947	150m	1.0m	650M§	§J	25	20	3.0	20m	100u#	10	2.0m	20 †				330ft	PL	TO72	G
89	A482	150m	1.0m	650M§	§J	25	20	3.0	15m	50nØ	10	2.0m	16 †				1.1p	PEØ	TO72	G
90	A484	150m	1.0m	650M§	§J	30	20	3.0	20m		10	3.0m	30 †				.28pt	PLØ	TO72	G
91#	BF182	150m	1.0m	650M§	§J	25	20	3.0	15m								.33pt	PLØ	TO72	G
92#	BFW64	150m	1.0m	650M§	§J	40	30	4.0		.5uØ§	10Ø	4.0mØ	70 †#				.2pt	DPLØ	TO72	J
93	BFX62	150m	1.0m	650M§	§J	30		4.0	12m		10Ø	2.0mØ	40					PL	TO72	
94#	2SC761	150m	1.0m	675M§	§J	30	20	3.0	20m	100u#	10	2.0m	13 †Δ				280ft	PLØ	TO72	G
95	BF180	150m	1.0m	675M§	§J	30	20	3.0	20m								.28pt	PLØ	TO72	
96#	BF260	150m	1.0m		45	45 Ø	4.0	50m	1.0u		6.0Ø	2.0mØ	70 †					PL	TO72	
97#	BF261	150m	1.0m	700M		40	40 Ø	4.0	50m		6.0Ø	1.0mØ	70 †					PL	TO72	
98#	2SC629	150m		800M§	§S	18	13	3.0	30m	.20uØ	3.0Ø	1.0mØ	30 †				1.3p	D	u37	
99#	2SC662	150m	1.2m	800M§	§J	25	12	2.0	20m	.50uØ	10Ø	2.0mØ	40 †#				1.0p	PE	R126	
100#	2SC948	150m	1.0m	800M§	§J	25	20	3.0	20m	100u#	10	3.0m	24 †				330ft	PL	TO72	G
101♦	A483	150m	1.0m	800M§	§J	25	20	3.0	15m	100nØ	10	3.0m	23 †				300ft	PE	TO72	G
102#	BF183	150m	1.0m	800M§	§J	25	20	3.0	15m								.33pt	PL	TO72	G
103▼#	BF287	150m	1.0m	800M§	§J	40	40	4.0	20m	50n§	10Ø	2.0mØ	40 †Δ					DPE	TO72	
104#	2SC663	150m	1.2m	900M§	§J	25	12	2.0	20m	.50uØ	10Ø	10mØ	40 †#				1.4p	PE	R126	
105#	2SC740	150m	1.2m	900M§	§J	25	12	2.0	20m	.50uØ	10Ø	10mØ	40 †#				1.4p	PE	R126	
106▼#	BF290	150m	1.0m	900M§	§J	40	40	4.0	20m	50n§	10Ø	3.0mØ	40 †Δ					DPE	TO72	
107#	2SC392	150m	1.0G§	1.4m	§J	30	30	3.0	20m	500nØ	10Ø	2.0 Ø	40 †Δ				350ft	PL	TO72	G
108♦#	2SC787	150m	1.0G§	1.2m	§J	25	20	3.0	20m	25nØ	10Ø	2.0mØ	25 †Δ				300ft	PLØ	TO72	G
109	A427	150m	1.0G§	1.0m	§J	25	20	3.0	15m	100nØ	10	3.0m	23 †				1.0p	PE	TO72	G
110	A486	150m§	1.0G§	3.0m	♦J	30	15	2.5	25m	10nØ	1.0Ø	2.0mØ	20 †Δ				600f	PEØ	X87	

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M A X	E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O D E
1	K2857C	150m	1.0G§	1.5m	♦	J	30	15	2.5	20m	.01uØ	1.0Ø	3.0mØ	50 †				2pØ	Ø	u35		
2	K2857P	150m	1.0G	1.5m	§	J	30	15	25		.01uØ	1.0Ø	3.0mØ	100 †				1.5p		TO122		P
3	K3683C	150m	1.0G§	1.5m	♦	J	30	15	2.5	20m	.05uØ	1.0Ø	3.0mØ	50 †				2pØ	Ø	u35		
4	K3683P	150m	1.0G	1.5m	§	J	30	15	25		.05uØ	1.0Ø	3.0mØ	100 †				1.7p		TO122		P
5	K3880C	150m	1.0G§	1.5m	♦	J	30	15	2.5	20m	.01uØ	1.0Ø	3.0mØ	50 †				2pØ	Ø	u35		
6#	2SC288A	150m	1.1G§		§	J	35	15	2.0	20m	1.0uØ	10	5.0m	80				1.0p	PE	u23		C
7#	2SC391	150m	1.2G§	1.2m	§	J	20	12	2.0	20m	1.0u	10Ø	2.0m	70				2pØ	PE	TO72		
8#	2SC804	150m	1.2G§	2.0m	§	J	15	13		20m	.50u	3.0Ø	1.0mØ	50 †		60 Ø		.45pØ	D			
9	K3880P	150m	1.2G	1.5m	§	J	30	15	25		.01uØ	1.0Ø	3.0mØ	100 †				1.5p		TO122		P
10	K5012	150m	1.4G	1.1m	§	J	25	12	25		50nØ	1.0Ø	3.0mØ	100 †				800f	D	TO50		C
11	K5503C	150m	1.5G§Δ	1.2m	§	J	20	12	2.0		.30uØ	6.0Ø	10mØ	15 Δ				1pØ	Et	u35		
12#	2SC988	150m	3.0G§	1.2m	§	J	20	15	3.0	30m	.50uØ	10Ø	10mØ	30 †Δ				.7pØ	PE	TO72		G
13#	2SC989†	150m	3.0G§	1.2m	§	J	20	12	3.0	50m	1.0uØ	1.0Ø	30mØ	30 †Δ				1.5pØ	PE	X79		CØ
14#	2SC987	150m	4.5G§	1.2m	§	J	20	15	3.0	30m	.50uØ	10Ø	10mØ	30 †Δ				.5pØ	PE	X80		GJ
15#	BF214	160m	150M§Δ	1.1m	§	J	30	30	4.0	30m		10Ø	1.0mØ	150				.70pØ	PE	TO72		J
16#	BF215	160m	150M§Δ	1.1m	§	J	30	30	4.0	30m		10Ø	1.0mØ	70				.70pØ	PE	TO72		J
17#	BF226	160m	150M§Δ	1.1m	§	J	30	30	4.0	30m		10Ø	1.0mØ	70				.70pØ	PE	TO72		J
18	A495	160m	220M§	2.0m	♦	J	30	20	5.0	30m		10	1.0m	67 †				1pt	PEØ	MM10		C
19#	BF255	160m*	220M§	2.0m	♦	J	30	20	5.0	30m								1pt	PEØ	X73		C
20	NPC115	160m	270M§	1.1m	§	S	50	30	5.0	30m	.50uØ	10Ø	1.0mØ	45 †Δ				.50pt	PEØ	TO72		J
21#	BF254	160m*	280M§	2.0m	♦	J	30	20	5.0	30m								1pt	PEØ	X73		C
22	A494	160m	300M§	2.0m	♦	J	30	20	5.0	30m		10	1.0m	115 †				1pt	PEØ	MM10		C
23	NPC189	160m	300M§	1.1m	§	S	50	30	5.0		.50uØ	10Ø	1.0mØ	45 †Δ				.5pt	E	TO72		J
24	NPC187	160m	500M§	1.1m	§	S	40	30	5.0	25m	.01uØ	10Ø	4.0mØ	30 †Δ				.4pt	PE	TO72		J
25	2N4433	165m	200M§	1.1m	§	J	50	30	5.0	30m	.01uØ	10Ø	1.0mØ	50 †Δ				1.5p	PEØ	TO72		J
26	2N1272	170m§		769u	§	S	20		2.0	100m	.70u	10Ø	2.0mØ	50				1.5p	D	TO9		AØ
27	2N4259	175m		1.1m	§		40	30	2.5		10nØ	8.0Ø	2.0mØ	70 Δ				550p	Ø	R115		G
28#	BSX38	175m*	200MΔ§	1.7m	§	J	35	30	5.0	100m	.05uØ	.50Ø	10mØ	65 †Δ				5.0p	PL	TO18		
29#	BC129	175m*	300M§	1.7m	§	J	50	45	5.0	100m	.10uØ	5.0Ø	2.0mØ	125 Δ				4.5p	PE	TO18		
30#	BC130	175m*	300M§	1.7m	§	J	25	20	5.0	100m	.10uØ	5.0Ø	2.0mØ	125 Δ				4.5p	PE	TO18		
31#	BC131	175m*	300M§	1.7m	§	J	25	20	5.0	100m	.10uØ	5.0Ø	2.0mØ	240 Δ				4.5p	PE	TO18		
32	SE5022	175m	300M§Δ	1.1m	§	J	20	20	3.0		50nØ	5.0Ø	4.0mØ	40 †#				500ftØ	DPLØ	TO72		Ø
33	SE5023	175m	300M§Δ	1.1m	§	J	20	20	3.0		50nØ	5.0Ø	4.0mØ	40 †#				500ftØ	DPLØ	TO72		Ø
34	SE5024	175m	300M§Δ	1.2m	§	J	20	20	3.0		.05uØ	5.0Ø	4.0mØ	40 †#				.5ptØ	DPLØ	TO72		G
35	SE5050	175m	300M§Δ	1.2m	§	J	20	20	3.0		.05uØ	5.0Ø	4.0mØ	40 †#				.5ptØ	DLØ	TO72		G
36	SE5051	175m	300M§Δ	1.2m	§	J	20	20	3.0		.05uØ	5.0Ø	4.0mØ	40 †#				.5ptØ	DPLØ	TO72		G
37	SE5020	175m	375M§Δ	1.2m	§	J	20	20	3.0		.05uØ	5.0Ø	4.0mØ	40 †#				.5ptØ	DPLØ	TO72		G
38	SE5021	175m	375M§Δ	1.2m	§	J	20	20	3.0		.05uØ	5.0Ø	4.0mØ	40 †#				.5ptØ	DPLØ	TO72		G
39▼#	BF222	175m	400M§	1.1m	§	J	50	50	4.0	20m	1.0u§	7.0Ø	2.0mØ	20 †Δ					DPE	TO72		
40	BF166	175m	500M§	1.2m	§	J	40		3.0		.10uØ	12Ø	2.5mØ	50 †#				.40pt	DPLØ	TO72		
41	BF175	175m	500M§	1.2m	§	J	40	40	3.0		.10uØ	12Ø	2.5mØ	70 †#				.40pt	DPLØ	TO72		
42	FT118	175m	500M§	1.2m	♦	J	20	20	3.0		.05u	10Ø	2.0mØ	80 †				.13p$	DPL	TO72		JØ
43	SE5052	175m	500M§	1.2m	§	J	20	20	3.0		.05uØ							.17p$	DPLØ	R96		G
44#	BF161	175m	550M§	1.2m	§	J	50	50	3.0	20m	.05uØ	24Ø	1.5mØ	70 †				1.2p	PLØ	TO72		G
45	BFX31	175m	550M§	1.0m	§	J	30	30	3.0		.05uØ	12Ø	4.0mØ	80 †#				.4pt	DPEØ	TO72		
46	BF155	175m	600M§	1.2m	§	J	40	40	3.0	20m	.10uØ	12Ø	2.5mØ	70 †#				.40pt	DPLØ	TO72		
47	40242	180m		1.2m	§	J	45	45	4.5	50m	.02uØ	6.0Ø	1.0m	80 †				.50p	PL	TO104		G
48	40243	180m		1.2m	§	J	45	45	4.5	50m	.02uØ	6.0Ø	1.0m	80 †				.50p	PL	TO104		G
49	40244	180m		1.2m	§	J	45	45	4.5	50m	.02uØ	6.0Ø	1.0m	65 †				.60p	PL	TO104		G
50	40245	180m		1.2m	§	J	45	45	4.5	50m	.02uØ	6.0Ø	1.0m	130 †				.50p	PL	TO104		G
51	40246	180m		1.2m	§	J	45	45	4.5	50m	.02uØ	6.0Ø	1.0m	55 †				.50p	PL	TO104		G
52	2SC402A	180m	140M§		♦	J	50			100m	.20uØ	3.0Ø	1.0mØ	60 †				2.8p	EM	u37		
53	2SC403A	180m	140M§		♦	J	50			100m	.20uØ	3.0Ø	1.0mØ	60 †				2.8p	EM	u37		
54	2SC631	180m	140M§		♦	J	25	25	6.0	100m	.20u	3.0Ø	1.0mØ	350 †				4.5p	EM	u37		
55	2SC632	180m	140M§		♦	J	40	40	6.0	100m	.20uØ	3.0Ø	1.0mØ	350 †				4.5p	EM	u37		
56	2SC633	180m	140M§		♦	J	25	25	6.0	100m	.20u	3.0Ø	1.0mØ	90 †				4.5p	EM	u37		
57	2SC634	180m	140M§		♦	J	40	40	6.0	100m	.20uØ	3.0Ø	1.0mØ	90 †				4.5p	EM	u37		
58#	BC167Δ	180m	300M§	2.2m	♦	J		45	6.0	100m	20n§Ø	5.0Ø	2.0mØ	330	30u	4.5k	2.0		PEØ	TO92		
59#	BC168Δ	180m	300M§	2.2m	♦	J		20	5.0	100m	20n§Ø	5.0Ø	2.0mØ	330	30u	4.5k	2.0		PEØ	TO92		
60#	BC169Δ	180m	300M§	2.2m	♦	J		20	5.0	100m	20n§Ø	5.0Ø	2.0mØ	330	30u	4.5k	2.0		PEØ	TO92		
61	2N5181	180m	400M§Δ	1.2m	§	S	45		3.0	50m	.02uØ	6.0Ø	1.0mØ	27 †Δ				.32p$		TO104		J
62	2N5182	180m	400M§Δ	1.2m	§	S	35		3.0	4.0m	.03uØ	6.0Ø	1.0mØ	27 †Δ				.34p$		TO104		J
63#	2SC682	180m	550M§				20	20	3.0	30m	100u	10Ø	2.0mØ	5.5				.47p	PE			
64#	2SC683	180m	550M§				20	20	3.0	20m	100u	10Ø	2.0mØ	5.5				.47p	PE			
65#	AT342	180m	550M§	1.2m	§	J	20	20	3.0	20m	.10uØ	10Ø	2.0mØ	35 #†Δ				.47p	PL†Ø	R103 a		G
66#	AT343	180m	550M§	1.2m	§	J	20	20	3.0	20m	.10uØ	10Ø	2.0mØ	35 #†Δ				.47p	PL†	R103 a		G
67▼#	AT345	180m	550MΔ§	1.2m	§	J	45	45	3.0	20m	100n	10Ø	2.0mØ	35 Δ				6.0pØ	PL	R103a		G
68▼#	AT346	180m	550MΔ§	1.2m	§	J	45	45	3.0	20m	100n	10Ø	2.0mØ	35 Δ				6.0pØ	PL	R103a		G
69	2N5180	180m	650M§Δ	1.2m	§	S	30	15	2.0		.50uØ	8.0Ø	2.0mØ	20 †Δ				1p$Ø		TO104		G
70	40238	180m	800M§	1.2m	§	J	45		4.5	50m	1.0uØ	6.0Ø	1.0m	170 †Ø				.5p$		TO104		G
71	40239	180m	800M§	1.2m	§	J	45		4.5	50m	1.0uØ	6.0Ø	1.0m	100 †Ø				.5p$		TO104		G
72	40240	180m	800M§	1.2m	§	J	45		4.5	50m	1.0uØ	6.0Ø	1.0m	275 †Ø				.5p$		TO104		G
73	40475	180m	800M§	1.2m	§	J	45		3.0	50m	1.0u	6.0Ø	1.0mØ	170 †Ø				.18p$		TO104		JØ
74	40476	180m	800M§	1.2m	§	J	45		3.0	50m	1.0u	6.0Ø	1.0mØ	100 †Ø				.18p$		TO104		JØ
75	40477	180m	800M§	1.2m	§	J	45		3.0	50m	1.0u	6.0Ø	1.0mØ	275 †Ø				.18p$		TO104		JØ
76	40478	180m	800M§	1.2m	§	A	45		3.0	50m	.02uØ	6.0	1.0m	40 †Δ				.20p$	Ø	TO104		JØ
77	40479	180m	800M§	1.2m	§	A	45		3.0	50m	.02uØ	6.0	1.0m	40 †Δ				.20p$		TO104		JØ
78	40480	180m	800M§	1.2m	§	A	45		3.0	50m	.02uØ	6.0	1.0m	27 †Δ				.20p$		TO104		JØ
79	40481	180m	860M§	1.2m	§	A	45		3.0	50m	.02uØ	6.0	1.0m	70 †Δ				.20p$		TO104		JØ
80	40482	180m	860M§	1.2m	§	A	45		3.0	50m	.02uØ	6.0	1.0m	27 †Δ				.20p$		TO104		JØ
81	40472	180m	900M§	1.2m	§	J	45		3.0	50m	1.0u	6.0Ø	1.0mØ	170 †Ø				.19p$	Ø	TO104		JØ
82	40473	180m	900M§	1.2m	§	J	45		3.0	50m	1.0u	6.0Ø	1.0mØ	275 †Ø				.19p$		TO104		JØ
83	40474	180m	900M§	1.2m	§	J	45		3.0	50m	1.0u	6.0Ø	1.0mØ	275 †Ø						TO104		JØ
84	40235	180m	1.0G§	1.2m	§	J	45		4.5	50m	1.0uØ	6.0Ø	1.0m	170 †Ø				.5p$		TO104		G
85	40236	180m	1.0G§	1.2m	§	J	45		4.5	50m	1.0uØ	6.0Ø	1.0m	275 †Ø				.5p$		TO104		G
86	40237	180m	1.0G§	1.2m	§	J	45		4.5	50m	1.0uØ	6.0Ø	1.0m	275 †Ø				.60p		TO104		G
87	2N2711	200m		2.7m	#	J	18	18	5.0	100m	500n	4.5Ø	2.0mØ	30 †Δ	1.6k	1.0k		9.0p	PLØ	R67		B
88	2N2712	200m		2.7m	#	J	18	18	5.0	100m	500n	4.5Ø	2.0mØ	75 †Δ	4.7k	2.5k		9.0p	PLØ	R67		B
89	2N2713	200m		2.7m	#	J	18	18	5.0	200m	500n	4.5Ø	2.0mØ	30 †Δ	1.6m	1.0k			PEΔ	R67		B
90	2N2714	200m		2.7m	#	J	18	18	5.0	200m	500n	4.5Ø	2.0mØ	75 †Δ	4.7m	2.5k			PEΔ	R67		B
91	2N2715	200m		2.6m	♦	S	18	18	5.0	50m	.50u	4.5Ø	2.0mØ	30 Δ				5pØ		RO67		B
92	2N2716	200m		2.6m	♦	S	18	18	5.0	50m	.50u	4.5Ø	2.0mØ	80 Δ				5pØ		RO67		B
93	2N3390	200m		2.6m	♦	S	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	400 Δ				10pØ		R67		B
94	2N3391	200m		2.6m	♦	S	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	250 Δ				10pØ		R67		B
95	2N3391A	200m		2.6m	♦	S	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	250 Δ				10pØ		R67		B
96	2N3392	200m		2.6m	♦	S	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	150 Δ				10pØ		R67		B
97	2N3393	200m		2.6m	♦	S	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	90 Δ				10pØ		R67		B
98	2N3394	200m		2.6m	♦	S	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	55 Δ				10pØ		R67		B
99	2N3395	200m		2.6m	♦	S	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	150 Δ				10pØ		R67		B
100	2N3396	200m		2.6m	♦	S	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	90 Δ				10pØ		R67		B
101	2N3397	200m		2.6m	♦	S	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	55 Δ				10pØ		R67		B
102	2N3398	200m		2.6m	♦	S	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	55 Δ				10pØ		R67		B
103	2N3721	200m		2.6m	♦	S	18	18	5.0	100m	500n	10	2.0mØ	60 Δ				12pØ		R67		B
104	2N3877	200m		2.6m	$	S	70	70	4.0	50m	500n	4.5Ø	2.0mØ	20 †Δ						R67		B
105	2N3877A	200m		2.6m	$	S	85	85	4.0	50m	500nØ	4.5Ø	2.0mØ	20 †Δ						R67		B
106	2N3900	200m		2.6m	♦	S	18	18	5.0	100m	100n	4.5Ø	2.0mØ	170 Δ				12pØ		R67		B
107	2N3900A	200m		2.6m	♦	S	18	18	5.0	100m	.10u	4.5Ø	2.0mØ	170 Δ				12pØ	Ø	TO98		B
108	2N3901	200m		2.6m	♦	S	18	18	5.0	100m	100nØ	10Ø	2.0 Ø	350 Δ					Ø	R67		B
109	2N4256†	200m		2.7m	♦	S	30	30 Ø	5.0	100m	.50u	4.5Ø	2.0mØ	500 †Ø						TO98		A
110	2N5172	200m		2.6m	$	S	25	25	5.0	100m	.10u	10Ø	10mØ	100 Δ				10p$Ø		TO98		B

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N5174	200m		2.7m	#J	90	75	5.0	25m	.50uØ	5.0Ø	10mØ	40 Δ				5p$Ø	PL†	TO98	B
2	2N5175	200m		2.7m	#J	130	100	5.0	25m	.50uØ	5.0Ø	10mØ	55 Δ				5p$Ø	PL†	TO98	B
3	2N5176	200m		2.7m	#J	130	100	5.0	25m	.50uØ	5.0Ø	10mØ	140 Δ				5p$Ø	PL†	TO98	B
4	3N87Ø	200m		1.3m	§S	20		10	10m	1.0n	5.0Ø	500uØ	5.0 Δ				3.5pØ		TO72	GCØ
5	3N88Ø	200m		1.3m	§S	20		10	10m	1.0n	5.0Ø	500uØ	5.0 Δ				3.5pØ		TO72	GCØ
6	3N127Ø	200m		1.3m	§S	30	20	20	10m	10n	10Ø	1.0mØ	2.0 Δ				5.0pØ		L47	Ø
7#	90T2	200m		2.7m	#J	100		4.0		.50uØ	.50Ø	2.0mØ	25 †Δ					PE†	RO67	B
8#	98T2†	200m		2.7m	#J	18	18	5.0	200m	.50u	4.5Ø	2.0mØ	180 †Δ		200			PE†	TO98	B
9	CI3900	200m		2.6m	J	18	18	5.0	100m	100n	4.5Ø	2.0mØ	170				12pØ	DPL†	R127a	D
10	CI3900A	200m		2.6m	J	18	18	5.0	100m	100n	4.5Ø	2.0mØ	170				12pØ	DPL†	R127a	D
11	CI3901	200m		2.6m	J	18	18	5.0	100m	100n	10Ø	2.0mØ	350					DPL†	R127a	D
12	CI4256	200m		2.7m	J	30	30	5.0	100m	500n	4.5Ø	2.0mØ	500 †					DPL†	R127	D
13	CS2926	200m		2.0m	$J	18	18	5.0	100m	.50u	10Ø	2.0mØ	35 Δ*				12pØ	DPL†	TO106	A
14	CS3900	200m		2.6m		18	18	5.0	100m	.10u	4.5Ø	2.0mØ	170				12p		R97a	
15	CS3900A	200m		2.6m		18	18	5.0	100m	.10u	4.5Ø	2.0mØ	170				12p		R97a	
16	CS3901	200m		2.6m		18	18	5.0	100m	.10u	10Ø	2.0mØ	350						R97a	
17	CS4256	200m		2.7m		30	30 Ø	5.0	100m	.50u	4.5Ø	2.0mØ	500 †						R97a	
18	GI2921	200m		2.7m	♦J		25			.50uØ	10Ø	2.0mØ	70 ☑				12pØ		TO18	A
19	GI2922	200m		2.7m	♦J		25			.50uØ	10Ø	2.0mØ	110 ☑				12pØ		TO18	A
20	GI2923	200m		2.7m	♦J		25			.50uØ	10Ø	2.0mØ	180 ☑				12pØ		TO18	A
21	GI2924	200m		2.7m	♦J		25			.50uØ	10Ø	2.0mØ	300 ☑				12pØ		TO18	A
22	GI2925	200m		2.7m	♦J		25			.50uØ	10Ø	2.0mØ	470 ☑				12pØ		TO18	A
23	GI2926	200m		2.7m	♦J		18			.50uØ	10Ø	2.0mØ	470 ☑				12pØ		TO18	A
24	GI3392	200m		2.7m	♦J	25	25			.10uØ	4.5Ø	2.0mØ	500 ☑				10pØ		TO18	A
25	MPS2923	200m		2.7m	#J	25	25	5.0	100m	.50u	10Ø	2.0mØ	90 Δ				12pØ	DEΔ	X20b	
26	MPS2924	200m		2.7m	#J	25	25	5.0	100m	.50u	10Ø	2.0mØ	150 Δ				12pØ	DEΔ	X20b	
27	MPS2925	200m		2.7m	#J	25	25	5.0	100m	.50u	10Ø	2.0mØ	235 Δ				12pØ	DEΔ	X20b	
28	RH120†	200m		1.1m	§J	20	10	4.0		.01uØ	5.0Ø	1.0mØ	110 †				1.7p	PL	ZA14	
29	SA2253Ø	200m			§J	40				.05uØ	5.0Ø	.10mØ	25 †					PL	L2	
30#	2SC466	200m	400m§	1.1m	§J	30	12	2.0	20m	500nØ	6.0Ø	1.0mØ	40				850f	PEØ	R103a	
31▼#	PBC107	200m	150 §Δ	2.6m	#J	45	45	5.0	100m	100n	5.0Ø	2.0mØ	125 Δ	60u☑	8.5k☑	1.8	6.0p	PEØ	TO98	B
32▼#	PBC108	200m	150 §Δ	2.6m	#J	20	20	5.0	100m	100n	5.0Ø	2.0mØ	125 Δ	110u☑	15k☑	2.0	6.0p	PEØ	TO98	B
33▼#	PBC109	200m	150 §Δ	2.6m	#J	20	20	5.0	100m	100n	5.0Ø	2.0mØ	240 Δ	110u☑	15k☑	2.5	6.0p	PEØ	TO98	B
34	2N470	200m	8.0M§Δ	1.2m	§S	15	15	2.0	25m	500n	5.0Ø	1.0m	10 Δ	1.5u☑b	90 ☑		8.0p☑		TO5	A
35	2N471	200m	8.0M§Δ	1.2m	§S	30	30	2.0	25m	500n	5.0Ø	1.0m	10 Δ	1.5u☑b	90 ☑		8.0p☑		TO5	A
36	2N471A	200m	8.0M	1.1m	§A	30	30	2.0		2.0u	5.0	1.0m	6.0 Δ	1.2u☑b	70 ☑	5.0	20p☑		TO5	A
37	2N472	200m	8.0M§Δ	1.2m	§S	45	45	2.0	25m	500n	5.0Ø	1.0m	10 Δ	1.5u☑b	90 ☑		8.0p☑		TO5	A
38	2N472A	200m	8.0MΔ		§S	45	45	2.0		500n	5.0	1.0m	6.0 Δ	600nb	70 ☑	5.0	20p☑		TO5	A
39	2N473	200m	8.0M§Δ	1.2m	§S	15	15	2.0	25m	500n	5.0Ø	1.0m	10 Δ	1.5u☑b	90 ☑		8.0p☑		TO5	A
40	2N474	200m	8.0M§Δ	1.2m	§S	30	30	2.0	25m	500n	5.0Ø	1.0m	20 Δ	1.5u☑b	90 ☑		8.0p☑		TO5	A
41	2N474A	200m	8.0MΔ	1.1m	§A	30	30	2.0		500n	5.0		20 Δ	1.2u☑b	70 ☑	5.0	20p☑	GD	TO5	A
42	2N475	200m	8.0M§Δ	1.2m	§S	45	45	2.0	25m	500n	5.0Ø	1.0m	20 Δ	1.5u☑b	90 ☑		8.0p☑		TO5	A
43	2N475A	200m	8.0MΔ		§S	45	45	2.0		500n	5.0	1.0m	35	600nb	70 ☑	5.0	20p☑		TO5	A
44	2N479A	200m	8.0MΔ	1.1m	§A	30	30	2.0		500n	5.0	1.0m	70	1.2u☑b	70 ☑	5.0	20p☑	GD	TO5	A
45	2N480A	200m	8.0MΔ	1.1m	§A	45	45	2.0		500n	5.0	1.0m	70	1.2u☑b	45	5.0	20p☑	GD	TO5	A
46	2N542A	200m	8.0MΔ			30	30	2.0		.50u	5.0	1.0m	80 Δ				20p	G	TO5	A
47	2N543A	200m	8.0M§		§S	45	45	2.0		500n	5.0	1.0m	140	600nb	50	5.0	20p☑		TO5	A
48	2N476	200m	12M§Δ	1.2m	§S	15	15	2.0	25m	500n	5.0Ø	1.0m	30 Δ	1.5u☑b	90 ☑		10p☑		TO5	A
49	2N477	200m	12M§Δ	1.2m	§S	30	30	2.0	25m	500n	5.0Ø	1.0m	30 Δ	1.5u☑b	90 ☑		10p☑		TO5	A
50	2N478	200m	20M§Δ	1.2m	§S	15	15	2.0	25m	500n	5.0Ø	1.0m	40 Δ	1.5u☑b	90 ☑		8.0p☑		TO5	A
51	2N479	200m	20M§Δ	1.2m	§S	30	30	2.0	25m	500n	5.0Ø	1.0m	40 Δ	1.5u☑b	90 ☑		8.0p☑		TO5	A
52	2N480	200m	20M§Δ	1.2m	§S	45	45	2.0	25m	500n	5.0Ø	1.0m	40 Δ	1.5u☑b	90 ☑		8.0p☑		TO5	A
53	2N1674	200m	20M§Δ	1.2m	§S	45	45	2.0	25m	500n	5.0Ø	1.0mØ	50 Δ	1.5u☑b	90 ☑		20p☑		TO5	A
54#	BC114	200m	20M§Δ	2.0m	♦J	30	25	6.0		.05uØ	10Ø	.05mØ	200 †				4pØ	DPLØ	R97a	
55	A607*	200m	30M§Δ	1.3m	§J	35	35	5.0	30m	5nØ	5.0Ø	.01mØ	100 †Δ				6pØ	PL*Ø	L2b	
56	A608*	200m	30M§Δ	1.3m	§J	35	35	5.0	30m	5nØ	5.0Ø	.01mØ	100 †Δ				6pØ	PL*Ø	L2b	
57	EN930	200m	30M§Δ	2.0m	♦J	45	45	5.0	30m	50n	5.0Ø	1.0mØ	600 ☑	1.0u☑b	32 ☑	6.0 ☑	8.0pØ	DPEØ	TO106	A
58	LID929	200m	30M§Δ	1.6m	§J	45	45	5.0		20n	5.0Ø	1.0mØ	60 Δ	1.0u☑b	32 ☑	6.0 ☑	8.0p☑	PLØ	TO122	P
59	LID930	200m	30M§Δ	1.6m	§J	45	45	5.0		20n	5.0Ø	1.0mØ	150 Δ	1.0u☑b	32 ☑	6.0 ☑	8.0pØ	PLØ	TO122	P
60#	PL4061	200m	30M§Δ	1.3m	§S	45	45 *	5.0	30m	10n	5.0Ø	10uØ	40 †Δ				8pØ	PLØ	u51	
61#	PL4062	200m	30M§Δ	1.3m	§S	45	45 *	5.0	30m	10n	5.0Ø	10uØ	100 †Δ				8pØ	PLØ	u51	
62	2N541	200m	39M§	1.1m	§A	15	15	2.0		500n	6.0Ø	1.0m	130	150nØb	45	3.6	2.4p	GD	TO5	A
63	2N542	200m	39M§	1.1m	§A	30	30	2.0		500n	6.0Ø	1.0m	130	150nØb	45	3.6	2.4p	GD	TO5	A
64	2N543	200m	39M§	1.1m	§A	45	45	2.0		500n	6.0Ø	1.0m	130	150nØb	45	3.6	2.4p		TO5	A
65	2N3565	200m	40M§Δ	2.0m	♦S	30	25	6.0	50m	.05uØ	5.0Ø	1.0mØ	120 Δ	35u☑	20k☑		4pØ	PE	R97a	A
66	2N4966	200m	40M§Δ	2.0m	♦J	50	40	6.0	30m	25nØ	5.0Ø	1.0mØ	500 ☑	1.0u☑b	32 ☑	6.0 ☑	6.0p$	Ø	TO106	A
67	2N4967	200m	40M§Δ	2.0m	♦J	50	40	6.0	30m	25nØ	5.0Ø	1.0mØ	950 ☑	1.0u☑b	32 ☑	6.0 ☑	6.0p$	Ø	TO106	A
68	2N4968	200m	40M§Δ	2.0m	♦J	30	25	6.0	30m	50nØ	5.0Ø	1.0mØ	500 ☑	1.0u☑b	32 ☑	6.0 ☑	6.0p$	Ø	TO106	A
69	2N5133	200m	40M§Δ	2.0m	♦J	20	18	3.0	50m	.05uØ	5.0Ø	1.0mØ	50 Δ				5p$		TO106	A
70	3N120Ø	200m	40M§Δ	1.3m	§S	30		20	10m	.01u							10pØ		TO72	GCØ
71	3N121Ø	200m	40M§Δ	1.3m	§S	30		20	10m	.01u							10pØ		TO72	GDØ
72	JAN3N127Ø	200m	40M§Δ	2.0m	§J	30		20	20m	10nØ							4.0pØ		TO72	GCØ
73	A1109	200m	40.M§	2.0m	§J	45		5.0		.10uØ	5.0Ø	1.0mØ	70 †Δ				8pØ	PL	TO18	AØ
74	A1341	200m	40M§Δ	1.6m	§J	75		5.0		.01uØ	10Ø	50mØ	50 †Δ				10pØ	PL	TO18	AØ
75	BC132	200m	40M§Δ	2.0m	♦J	30	25	6.0		.05uØ	5.0Ø	1.0mØ	280	11u	7.5k	3.0	2.2p	PL	R97a	
76	S15650	200m	40M§Δ	2.0m	♦J	30	25	6.0		.05uØ	10Ø	1.0mØ	150 †Δ	11u	7.5k	3.0	4pØ	DPL	TO106	
77	SE4001	200m	40M§Δ	2.0m	♦J	30	25	6.0		.20uØ	5.0Ø	1.0mØ	280	11u	7.5	3.0	4pØ	DPL	R124	A
78	ST70000Ø	200m	40M§Δ	1.3m	§J	30	20	20	10m	.01u							10pØ	PE*	L62	
79	ST70001Ø	200m	40M§Δ	1.3m	§J	30	20	20	10m	.01u							10pØ	PE*	L62	
80#	2SC388A	200m	45.M§	2.0m	♦J	30	20	2.0	20m	.50uØ	3.0Ø	8.0m	80				2.5pØ	PE	RO67a	B
81#	C407	200m	50.M§	2.0m	♦J	120	120	5.0		.20uØ	10Ø	3.0mØ	18 †Δ					PL	R97	
82	TD100*	200m	50M§	1.5m	§J	60	30	5.0	500m	10nØ	5.0Ø	1.0mØ	350	90nb	26		5.0p	PL*	L2u	
83	TD101*	200m	50M§	1.5m	§J	60	30	5.0	500m	10nØ	5.0Ø	1.0mØ	350	90nb	26		5.0p	PL*	L2u	
84	2N2453*	200m	60M§Δ	1.1m	§J	60	30	7.0	50m	5.0nØ	5.0Ø	1.0mØ	150 Δ	30u☑	5.0k	6.0pØ	8.0pØ	*	L2t	
85	2N2453A*	200m	60M§Δ	1.1m	§J	80	50	7.0	50m	5.0nØ	5.0Ø	1.0mØ	150 Δ	30u☑	5.0k	6.0 ☑	4.0pØ	*	L2t	
86	2N2903*	200m	60M§Δ	1.1m	§J	60	30	7.0	50m	.01uØ	5.0Ø	1.0mØ	150 Δ	30u☑	1.0k	6 ☑	8pØ	*Ø	L2t	
87	2N2903A*	200m	60M§Δ	1.1m	§J	60	30	7.0	50m	.01uØ	5.0Ø	1.0mØ	150 Δ	30u☑	1.0k	6 ☑	8pØ	*Ø	L2t	
88	2N3843	200m	60M§Δ	2.7m	♦S	30	30	4.0	100m	.50uØ	4.5Ø	2.0mØ	20 †Δ				4pØ		TO98	B
89	2N3843A	200m	60M§Δ	2.7m	♦S	30	30	4.0	100m	.50uØ	4.5Ø	2.0mØ	40 †☑				4pØ	Ø	TO98	B
90	A640L,S*	200m	60.M§	2.0m	♦J	30	30	5.0	30m	.10u	5.0Ø	.01mØ	100 †☑				3.5p	PLØ	ZA26	
91	A641L,S*	200m	60.M§	2.0m	♦J	30	30	5.0	30m	.10u	5.0Ø	.01mØ	200 †☑				3.5p	PLØ	ZA26	
92	A642L,S*	200m	60.M§	2.0m	♦J	30	30	5.0	30m	.10u	5.0Ø	.01mØ	400 †☑				3.5p	PLØ	ZA26	
93	A649L*	200m	60.M§	2.0m	♦J	30	30	5.0	30m	1.0n	5.0Ø	10uØ	200 †Δ				3.5p	PLØ	X56a	A
94	A649S*	200m	60.M§	2.0m	♦J	30	30	5.0	30m	1.0n	5.0Ø	10uØ	200 †Δ				3.5p	PLØ	X56	A
95	BC113	200m	60.M§	2.0m	♦J	30	25	6.0		.05uØ	5.0Ø	1.0mØ	330	15u	8.0k	.32	2.0p	DPL	R97a	
96#	C450	200m	60M§Δ	2.0m	♦J	40	40	5.0		.10uØ	5.0Ø	1.0mØ	100 †Δ				6pØ	PL	R97a	
97	CS3843	200m	60.M	2.7m		30	30	4.0	100m	.50u	4.5Ø	2.0mØ	20 †				4.0p		R97a	
98	EN2484	200m	60M§Δ	2.0m	♦J	60	60	6.0	50m	.05u	5.0Ø	1.0mØ	900 †#☑	40u☑	24k☑	8 ☑	6pØ	DPEØ	TO106	A
99#	ME1100	200m	60M§Δ	1.6m	§J	110		4.0	200m	500nØ	10Ø	10mØ	20 †Δ				4.0pØ	DP†	TO106	A
100#	ME1120	200m	60M§Δ	1.6m	§J	130		4.0	200m	500nØ	10Ø	10mØ	20 †Δ				4.0pØ	DP†	TO106	A
101#	ME4101	200m	60M§Δ	1.6m	§J	60		5.0	30m	10nØ	5.0	1.0mØ	60 Δ	1.0u☑b	32 ☑	6.0 ☑	4.0pØ	PEØ	TO106	A
102#	ME4102	200m	60M§Δ	1.6m	§J	60		5.0	30m	10nØ	5.0	1.0mØ	150 Δ	1.0u☑b	32 ☑	6.0 ☑	4.0pØ	PEØ	TO106	A
103	S15649	200m	60M§Δ	2.0m	♦J	30	25	6.0		.05uØ	10Ø	1.0mØ	350 †	15u	15k	4.3	4pØ	DPLØ	TO106	AØ
104	SE4002	200m	60M§Δ	2.0m	♦J	30	25	6.0		.20uØ	5.0Ø	1.0mØ	400	15u	15	4.3	4pØ	DPL	R124	A
105	SE4010	200m	60M§Δ	2.0m	♦J	30	25	6.0		.20uØ	5.0Ø	1.0mØ	400	15u	15	4.3	4pØ	DPLØ	R124	A
106#	2SC281	200m	80M§Δ			30	20	5.0	100m	.10u	6.0Ø	10mØ	170				10pØ	Ø	TO1	
107▼#	BC220	200m	80M§	5.0m	♦J	30	25	5.0	50m	50n	5.0Ø	1.0mØ	100 †Δ	13m	7.4k	2.7	3.0p	DPL	TO106	
108	2N3844	200m	90M§Δ	2.7m	♦S	30	30	4.0	100m	.50uØ	4.5Ø	2.0mØ	35 †Δ				4pØ		TO98	B
109	2N3844A	200m	90M§Δ	2.7m	♦S	30	30	4.0	100m	.50uØ	4.5Ø	2.0mØ	70 †☑				4pØ	Ø	TO98	B
110	2N3858A	200m	90M§Δ	2.6m	♦S	60	60	6.0	100m	.50uØ	1.0Ø	1.0mØ	45 †Δ				4pØ		TO98	B

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N3859A	200m	90M§△	2.6m	♦S	60	60	6.0	100m	.50uØ	1.0Ø	1.0mØ	75 †△				4pⓅ		TO98	B
2	CS3844	200m	90M	2.7m		30	30	4.0	100m	.50u	4.5Ø	2.0mØ	35 †				4.0p		R97a	
3	CS3859A	200m	90M	2.6m		60	60	6.0	100m	.50u	1.0Ø	1.0mØ	75 †				4.0p		R97a	
4#	ME4103	200m	90M§	1.6m	$J	50		5.0	30	20nØ	5.0Ø	1.0mØ	200 †	20u	10k		4.0pⓅ	PEØ	TO106	A
5▼#	ME4104	200m	90M§	1.6m	$J	25		4.0	30	20uØ	5.0Ø	1.0mØ	150 †				3.0pⓅ	PE	R124	
6	2N3854	200m	100M§△	2.7m	$S	18	18	4.0	100m	500n	4.5Ø	2.0 Ø	70 †Ⓟ				3.5pⓅ		R67	B
7	2N3854A	200m	100M§△	2.7m	$S	30	30	4.0	100m	500nØ	4.5Ø	2.0 Ø	70 †Ⓟ				3.5pⓅ		R67	B
8	2N5131	200m	100M§△	2.0m	♦J	20	15	3.0	200m	.05uØ	1.0Ø	10mØ	25 △				6p$Ⓟ		TO106	A
9#	2SC713†	200m	100M§△	2.0m	♦J	30	25	4.0	100m	.10uØ	6.0Ø	10mØ	90 †#				2.5p	PE†	TO92	D
10#	2SC780	200m	100M§	2.0m	♦J	70	70	2.0	20m	5.0uØ	10Ø	2.0m	60				5.0pⓅ	PE	R67a	B
11	CS3854	200m	100M	2.7m		18	18	4.0	100m	.50u	4.5Ø	2.0mØ	70 †				3.5p		R97a	
12	CS3854A	200m	100M	2.7m		30	30	4.0	100m	.50uØ	4.5Ø	2.0mØ	70 †				3.5p		R9	
13#	2SC941	200m	120M§	2.0m	♦J	35	30	4.0	20m	100nØ	12Ø	2.0mØ	60 †				2.7p	PE	R67a	B
14	2N3845	200m	126M§△	2.7m	♦S	30	30	4.0	100m	.50uØ	4.5Ø	2.0mØ	60 †△				4pⓅ		TO98	B
15	2N3845A	200m	126M§△	2.7m	♦S	30	30	4.0	100m	.50uØ	4.5Ø	2.0mØ	120 †Ⓟ				4pⓅ	Ø	TO98	B
16	CS3845	200m	126M	2.7m		30	30	4.0	100m	.50u	4.5Ø	2.0mØ	60 †				4.0p		R97a	
17	2N3855	200m	130M§△	2.7m	$S	18	18	4.0	100m	500n	4.5Ø	2.0 Ø	120 †Ⓟ				3.5pⓅ		R67	B
18	2N3855A	200m	130M§△	2.7m	$S	30	30	4.0	100m	500nØ	4.5Ø	2.0 Ø	120 †Ⓟ				3.5pⓅ		R67	B
19	CS3855	200m	130M	2.7m		18	18	4.0	100m	.50u	4.5Ø	2.0mØ	120 †				3.5p		R97a	
20	CS3855A	200m	130M	2.7m		30	30	4.0	100m	.50u	4.5Ø	2.0mØ	120 †				3.5p		R97a	
21	2N3858	200m	135M§	2.6m	#J	30	30	4.0	100m	.50u	4.5Ø	2.0mØ	60 †△				2.5p	PE	TO98	B
22	2N3859	200m	135M§	2.6m	#J	30	30	4.0	100m	.50u	4.5Ø	2.0m	100 †△				2.5p	PE	TO98	B
23	2N3860	200m	135M§	2.6m	#J	30	30	4.0	100m	.50u	4.5Ø	2.0mØ	150 †△				2.5p	PE	TO98	B
24	CS3859	200m	135M	2.6m		30	30	4.0	100m	.50u	4.5Ø	2.0m	100 †				2.5p	PE	R97a	
25	CS3860	200m	135M	2.6m		30	30	4.0	100m	.50u	4.5Ø	2.0mØ	150 †				2.5p	PE	R97a	
26	2N3856	200m	140M§△	2.7m	$S	18	18	4.0	100m	500nØ	4.5Ø	2.0 Ø	200 †Ⓟ				3.5pⓅ		R67	B
27	2N3856A	200m	140M§△	2.7m	$S	30	30	4.0	100m	500nØ	4.5Ø	2.0 Ø	200 †Ⓟ				3.5pⓅ		R67	B
28	2N5127	200m	150M§△	2.0m	♦J	20	12	3.0	100m	.05uØ	10Ø	2.0mØ	12 △				3.5p$		TO106	A
29#	2SC369	200m	150M§	2.0m	♦J	25	25 §	5.0	100m	100nØ	10Ø	1.0m	250				1.5p	PE	R67a	B
30▼#	2SC369G/BL	200m	150M§	2.0m	♦J	25	18	5.0	100m	100nØ	10Ø	1.0mØ	250 †△	6.0u	80k	20	1.5p	PEØ	R67a	B
31▼#	2SC369G/GR	200m	150M§	2.0m	♦J	25	18	5.0	100m	100nØ	10Ø	1.0mØ	150 †△	6.0u	80k	20	1.5p	PEØ	R67a	B
32#	2SC370	200m	150M§	2.0m	♦J	30	25	4.0	100m	1.0uØ	6.0Ø	1.0m	40				2.5p	PE	R67a	B
33#	2SC371	200m	150M§	2.0m	♦J	30	25	4.0	100m	1.0uØ	6.0Ø	1.0m	80				2.5p	PE	R67a	B
34#	2SC372	200m	150M§	2.0m	♦J	30	25	4.0	100m	1.0uØ	6.0Ø	1.0m	140				2.5p	PE	R67a	B
35#	2SC373	200m	150M§	2.0m	♦J	30	25	4.0	100m	1.0uØ	6.0Ø	1.0m	250				2.5p	PE	R67a	B
36#	2SC374	200m	150M§	2.0m	♦J	30	25	4.0	100m	1.0uØ	6.0Ø	1.0m	400				2.0p	PE	R67a	B
37#	2SC377	200m	150M§	2.0m	♦J	35	30	4.0	30m	.50uØ	12Ø	2.0mØ	25 †△*				2.0p	PEØ	RO67a	A
38#	2SC378	200m	150M§	2.0m	♦J	35	30	4.0	30m	.50uØ	12Ø	2.0mØ	40 †△*				2.0p	PEØ	RO67a	B
39#	2SC712	200m	150M§	2.0m	♦J	25	12	4.0	100m	1.0u	6.0Ø	10mØ	90 †#				2.5p	PE†	TO92	D
40#	2SC712A	200m	150M§	2.0m	♦J	30	25	4.0	100m	1.0uØ	6.0Ø	10mØ	90 †#				2.5p	PE†	TO92	D
41#	2SC868†	200m	150M§	2.0m	♦J	70	40	5.0	30m	.10uØ	6.0Ø	1.0mØ	35 †#△					PE†Ø	TO92	D
42#	2SC869†	200m	150M§	2.0m	♦J	110	50	5.0	30m	.10uØ	6.0Ø	1.0mØ	35 †#△					PE†	TO92	D
43#	2SC870	200m	150M§	2.0m	♦J	30	25	4.0	30m	.10uØ	6.0Ø	1.0mØ	250 †#	5.0u	75k	3.5	2.5p	PE†Ø	TO92	D
44#	2SC871	200m	150M§	2.0m	♦J	30	25	4.0	30m	.10uØ	6.0Ø	.10mØ	350 †#	5.0u	75k	3.5	2.5p	PE†Ø	TO92	D
45#	BC171	200m	150M§△	2.0m	♦J	45	45	5.0	100m	15n	5.0Ø	2.0mØ	275 *	24u	3.6k	1.8	6.0p$Ⓟ	PE	X64	
46#	BC172	200m	150M§△	2.0m	♦J	20	20	5.0	100m	15n	5.0Ø	2.0mØ	380 *	36u	5.3k	2.5	6.0p$Ⓟ	PE	X64	
47#	BC173	200m	150M§△	2.0m	♦J	20	20	5.0	100m	15n	5.0Ø	2.0mØ	465 *	45u	6.6k	2.5	6.0p$Ⓟ	PE	X64	
48	2SC174	200m	170M§	1.3m	$J	30		5.0	25m	1.0uØ	6.0Ø	2.0m	45				1.5p	PL	TO92	G
49	2SC56	200m	180M§	2.1m	♦J	20		3.0	25m	2.0uØ	6.0Ø	2.0m	80		80		2.3p	PL	R127	
50#	2SC281H	200m	180M§			30	20	5.0	100m	.10u	6.0Ø	10mØ	9.0				10pⓅ		TO1	
51#	2SC350	200m	180M§			30	20	5.0	100m	.01uØ	6.0Ø	.10mØ	250 Ⓟ				7.0p	PM	TO1	
52#	2SC350H	200m	180M§△			30	20	5.0	100m	10u	6.0Ø	10mØ	9.0				7.0p	Ø	TO1	
53	2N2921	200m	200M§	2.6m	♦S	25	25	5.0	100m	500n	10Ø	2.0 Ø	35 △				12pⓅ	PL	R67	B
54	2N2922	200m	200M§	2.6m	♦S	25	25	5.0	100m	500n	10Ø	2.0 Ø	55 △				12pⓅ	PL	R67	B
55	2N2923	200m	200M§	2.6m	♦S	25	25	5.0	100m	500n	10Ø	2.0 Ø	90 △				12pⓅ	PL	R67	B
56	2N2924	200m	200M§	2.6m	♦S	25	25	5.0	100m	500n	10Ø	2.0 Ø	150 △				12pⓅ	PL	R67	B
57	2N2925	200m	200M§	2.6m	♦S	25	25	5.0	100m	500n	10Ø	2.0 Ø	235 △				12pⓅ	PL	R67	B
58	2N2926	200m	200M§	2.6m	♦S	18	18	5.0	100m	500n	10Ø	2.0 Ø	470 Ⓟ*				12pⓅ	PL	R67	B
59	2N3691	200m	200M§△	2.0m	♦J	35	20	4.0	30m	50uØ	10Ø	5.0mØ	40 △				3.5pⓅ		R110	A
60	2N3692	200m	200M§△	2.0m	♦J	35	20	4.0	30m	50uØ	10Ø	5.0mØ	100 △				3.5pⓅ		R110	A
61	2N3693	200m	200M§△	2.0m	♦J	45	45	4.0	30m	50uØ	10Ø	10mØ	40 †△#				6.0pⓅ		R110	A
62	2N3694	200m	200M§△	2.0m	♦J	45	45	4.0	30m	50uØ	10Ø	10mØ	100 †△#				6.0pⓅ		R110	A
63	2N4969†	200m	200M§△	2.0m	♦S	50	30	5.0	500m	.05u§	10Ø	150mØ	120 †#				8p$		TO106	A
64	2N4970†	200m	200M§△	2.0m	♦S	50	30	5.0	500m	.05u§	10Ø	150mØ	350 †#				8p$		TO106	A
65	2N5128	200m	200M§△	2.0m	♦J	15	12	3.0	500m	.05uØ	10Ø	50mØ	35 †△				10p$		TO105	A
66	2N5132	200m	200M§△	2.0m	♦J	20	20	3.0	30m	.05uØ	10Ø	10mØ	20 △				3.5p$		TO106	A
67#	2SC174A	200m	200M§	1.3m	$J	60		5.0	25m	1.0uØ	6.0Ø	2.0m	45				1.5p	PL	TO72	G
68#	2SC206	200m	200M§	1.3m	$J	20		2.0	25m	2.0uØ	6.0Ø	2.0m	35				1.5p	PL	TO72	G
69#	2SC370G	200m	200M§	2.0m	♦J	35	30	5.0	100m	.50uØ	1.0Ø	10mØ	20 †△				3.5pⓅ	PE△	RO67a	B
70#	2SC371G	200m	200M§	2.0m	♦J	35	30	5.0	100m	.50uØ	1.0Ø	10mØ	40 †△				3.5pⓅ	PE△	RO67a	B
71#	2SC372G	200m	200M§	2.0m	♦J	35	30	5.0	100m	.50uØ	1.0Ø	10mØ	70 †△				3.5pⓅ	PE△	RO67a	B
72#	2SC373G	200m	200M§	2.0m	♦J	35	30	5.0	100m	.50uØ	1.0Ø	10mØ	125 †△				3.5pⓅ	PE△	RO67a	B
73#	2SC394	200m	200M§	2.0m	♦J	35	30	4.0	100m	.50uØ	12Ø	2.0mØ	25 †△*				2.0p	PE	RO67a	B
74#	2SC478	200m	200M§	1.7m	$J	50	50 Ø	1.5	120m		12Ø	20m	20 †				4.0p	PE	TO18	
75	2SC561	200m	200M§	2.0m	♦J	20		2.0	25m	2.0uØ	6.0Ø	2.0m	35		80		2.0p	PL	R127	
76#	2SC709	200m	200M§	2.0m	♦J	25	12	4.0	100m	1.0u	6.0Ø	1.0mØ	70 †#				2.5p	PE†	TO92	D
77#	2SC710	200m	200M§	2.0m	♦J	30	25	4.0	30m	1.0uØ	6.0Ø	1.0mØ	90 †#				2.0p	PE†	TO92	D
78#	BC118	200m	200M§△	2.0m	♦J	45	45	4.0		.10uØ	10Ø	5.0mØ	110	25u	900	1.2	3.5pⓅ	DPLØ	R97a	
79#	BC134	200m	200M§△	2.0m	♦J	45	45	4.0		100nØ	10Ø	5.0mØ	230	35u	1.1k	1.2	3.5pⓅ	PL	R97a	
80#	BC135	200m	200M§△	2.0m	♦J	45	45	5.0		.05uØ	10Ø	5.0mØ	110	35u	800	1.2	3.5pⓅ	DPL	R97a	
81#	BSY61†	200m	200M§△	2.0m	♦J	25	15	5.0	200m	.50uØ	1.0Ø	10mØ	30 †△					D †	TO92	B
82	EN706†	200m	200M§△	2.0m	♦J	25	15	3.0		.50nØ	1.0Ø	10mØ	20 †#△				6pⓅ	DPE	TO106	A
83	SE2001	200m	200M§△	2.0m	♦J	35	20	4.0		.50uØ	1.0Ø	10mØ	40 †#△	25u	900	1.2	6pⓅ	DPL	TO106	
84	SE2002	200m	200M§△	2.0m	♦J	35	20	4.0		500nØ	1.0Ø	10mØ	100 †△#	35u	1.1k	1.3	6.0pⓅ	DPL	TO106	
85	SE4020	200m	200M§	2.0m	♦J	60	60	8.0	50m	2.0nØ	10Ø	1.0mØ	335	24u	8.5k	7.0	2.5p$	DPEØ	TO106	A
86#	2SC649	200m	220M§			30	25	6.0	30m	100u	6.0Ø	.10mØ	60 †△				2.5p	Ø	TO1	
87#	2SC650	200m	220M§			30	25	6.0	30m	100u	6.0Ø	.10mØ	100 †△				2.5p	Ø	TO1	
88#	2SC454	200m	230M§	2.0m	♦J	30	30	5.0	100m	.50uØ	12Ø	2.0mØ	60 †△*				1.8p	PE†	MM12b	B
89#	2SC454L	200m	230M§			30	30	5.0	100m	.50u	12Ø	2.0mØ	60 †△				1.8p	Ø		
90#	2SC458	200m	230M§	2.0m	♦J	30	30	5.0	100m	.01uØ	12Ø	2.0mØ	60 †△*				1.8p	PE†	MM12b	B
91#	2SC458L	200m	230M§			30	30	5.0	100m	.50u	12Ø	2.0mØ	150 †				1.8p	Ø		
92#	2SC458LG	200m	230M§			30	30	5.0	100m	.50u	12Ø	2.0mØ	60 †△				1.8p	Ø		
93#	2SC460	200m	230M§			30	30	5.0	100m	.50u	12Ø	2.0mØ	35 †△				1.5p	PE		
94#	2SC461	200m	230M§			30	30	5.0	100m	.50u	12Ø	2.0mØ	35 †△				1.5p	PE		
95	2N3291	200m	250M§△	1.1m	§J	25	25 Ø	3.0	50m	100nØ	10Ø	2.0mØ	10 △				2.0pⓅ	Ø	TO72	GØ
96	2N3292	200m	250M§△	1.1m	§J	25	25 Ø	3.0	50m	.10uØ	10Ø	2.0mØ	10 △				2pⓅ		TO72	GØ
97	2N3293	200m	250M§△	1.1m	§J	20	20 Ø	3.0	50m	.10uØ	10Ø	2.0mØ	10 △				2pⓅ		TO72	GØ
98	2N3294	200m	250M§△	1.1m	§J	20	20 Ø	3.0	50m	.10uØ	10Ø	2.0mØ	10 △				2pⓅ		TO72	GØ
99	2N4436†	200m	250M§△	2.0m	♦J	60	30	5.0	500m	.05u§	10Ø	150mØ	40 †#△				8pⓅ	†	R124	A
100	2N4437†	200m	250M§△	2.0m	♦J	60	30	5.0	500m	.05u§	10Ø	150mØ	100 †#△				8pⓅ		R124	A
101	2N5134†	200m	250M§△	2.0m	♦J	20	10	3.5	100m	.40u§	1.0Ø	10mØ	150 †#Ⓟ				4.0p$		TO106	A
102#	2SC171	200m	250M§	1.3m	§J	25	20 §	3.0	50m	.50uØ	6.0Ø	10m	60				5.0p	PE	TO18	
103#	2SC380	200m	250M§	2.0m	♦J	35	30	4.0	30m	.50uØ	12Ø	2.0mØ	40 †△*				2.0p	PE†	RO67a	B
104#	2SC398	200m	250M§△	1.6m	$J	20	20	3.0	20m	.05uØ	5.0Ø	4.0mØ	20 †△				.5ptⓅ	PEØ	TO72	G
105#	2SC399	200m	250M§△	1.6m	$J	20	20	3.0	20m	.05uØ	5.0Ø	4.0mØ	20 †△				.5ptⓅ	PEØ	TO72	G
106	EN2222	200m	250M§△	2.0m	♦J	60	30 *Ⓟ	5.0	800m	.05uØ	10Ø	.10mØ	35 †△				8pⓅ	DPE△	TO106	A
107	SE4021	200m	260M§	2.0m	♦J	45	45	8.0	50m	2.0nØ	10Ø	1.0mØ	1.0k	74u	28k	23	2.5p$	DPEØ	TO106	A
108	SE4022	200m	280M§	5.0m	♦J	30	30	8.0	50m	2.0nØ	10Ø	1.0mØ	1.6k	120u	39k	33	2.5p$	DPEØ	TO106	A
109	EN744†	200m	282M§△	2.0m	♦J	20	12 *Ⓟ	5.0	200m	1.0u	.25Ø	1.0mØ	20 †△				5pⓅ	DPE	TO106	A
110	2N3289	200m	300M§△	1.1m	§J	30	15	3.0	50m	.01uØ	10Ø	2.0mØ	10 △				2pⓅ	Ø	TO72	GØ

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC-TURE	DWG. No.	L C E O A D D E
1	2N3290	200m	300M§△	1.1m	§J	30	15	3.0	50m	.01uØ	10Ø	2.0mØ	10 △				2pØ	Ø	TO72	GØ
2	2N3605†	200m	300M§△	2.7m	§S	18	14	5.0	200m	500n	1.0Ø	10mØ	30 †△				6.0pØ		R67	B
3	2N3606†	200m	300M§△	2.7m	§S	18	14	5.0	200m	500n	1.0Ø	10mØ	30 †△				6.0pØ		R67	B
4	2N3607†	200m	300M§△	2.7m	§S	18	14	5.0	200m	500n	1.0Ø	10mØ	30 †△				6.0pØ		R67	B
5	2N5126	200m	300M§△	2.0m	♦J	20	20	3.0	30m	.05uØ	10	4.0mØ	15 △				1.6p$		TO106	A
6#	2SC379	200m	300M§	2.0m	♦J	30	20	4.0	100m	500nØ	10Ø	2.0m	70				2.0p	PE	R67a	B
7#	2SC381	200m	300M§	2.0m	♦J	30	20	4.0	100m	500nØ	10Ø	2.0m	90				2.0p	PE	R67a	B
8#	2SC468H†	200m	300M§△	1.3m	§J	40	15	5.0	200m	.25u	1.0Ø	10mØ	35 †△*				6pØ	PE	R92b	A
9	A646*	200m	300M§△	1.3m	§J	35	35	5.0	30m	.01uØ	5.0Ø	.10mØ	100 †△	80uØ	20kØ		6pØ	PL*Ø	L2b	
10	A1170	200m	300M§△	1.1m	§J	15	10	2.0		.01uØ	1.0Ø	3uØ	10 †△				3pØ	PL	TO18	A
11#	BF153	200m	300M§△	2.0m	♦J	30	12	2.0		.10uØ	6.0Ø	3.0mØ	20 †△				1.7pØ	PE	R97a	
12	BFX77	200m	300M§	1.3m	§J	50	30	5.0		.01uØ	10Ø	10mØ	50 †△				1.8pØ	PE	TO72	J
13	CS3605†	200m	300M§△	2.7m	§S	18	14	5.0	200m	.50u	1.0Ø	10mØ	30 †△				6pØ		TO106	
14	CS3606†	200m	300M§△	2.7m	§S	18	14	5.0	200m	.50u	1.0Ø	10mØ	30 †△				6pØ		TO106	
15	CS3607†	200m	300M§△	2.7m	§S	18	14	5.0	200m	.50u	1.0Ø	10mØ	30 †△				6pØ		TO106	
16	EN708†	200m	300M§△	2.0m	♦J	40	15	5.0		.05uØ	1.0Ø	10mØ	30 †#△				6pØ	DPE	TO106	A
17	EN914†	200m	300M§△	2.0m	♦J	40	15	5.0		.10uØ	1.0Ø	10mØ	30 †#△				6pØ	DPE	TO106	A
18	2N3287	200m	350M§△	1.1m	§J	40	20	3.0	50m	.01uØ	10Ø	2.0mØ	15 △				1pØ	Ø	TO72	GØ
19	2N3288	200m	350M§△	1.1m	§J	40	20	3.0	50m	.01uØ	10Ø	2.0mØ	15 △				2pØ	Ø	TO72	GØ
20	2N3646†	200m	350M§△	2.0m	♦J	40	15	5.0	200m	500n§	.40Ø	30mØ	30 †△#				5.0pØ		R110	A
21	2N4134	200m	350M§	1.1m	§J	30	30	3.0	30m	.05uØ	5.0Ø	4.0mØ	200 Ø				1.2pØ	Ø	TO72	G
22	EN3009†	200m	350M§△	2.0m	♦J	40	15	4.0		.50u§	.40Ø	30mØ	30 †#△				5pØ	DPE	TO106	A
23	EN3013†	200m	350M§△	2.0m	♦J	40	15	5.0		.30u§	.40Ø	30mØ	30 †#△				5pØ	DPE	TO106	A
24	EN3014†	200m	350M§△	2.0m	♦J	40	15	5.0		.30u§	.40Ø	30mØ	30 †#△				5pØ	DPE	TO106	A
25	MPS3646†	200m	350M§△	2.0m	♦J	40	15	5.0	200m	.5u§Ø	.40Ø	30mØ	30 †△				5pØ	EA	TO92	A
26	SE1001	200m	350M§	2.0m	♦J	45	45	4.0		.50uØ	10Ø	10mØ	110	25u	900	1.2	3.5pØ	DPLØ	TO106	
27	SE1002	200m	350M§	2.0m	♦J	45	45	4.0		500nØ	10Ø	10mØ	145	35u	1.1k	1.3	3.5pØ	DPLØ	TO106	
28#	2SC864	200m	360M§△	1.6m	§J	40	30	4.0	25m	1nØ	10Ø	7.0mØ	39 †△				.23p†	PE	TO72	G
29	2N3564	200m	400M§△	2.0m	♦S	30	15	4.0	100m	.05uØ	10Ø	15mØ	20 #†△		100 Ø		3.5pØ	PE	R97a	
30	2N3688	200m	400M△	2.0m	♦J	40	40	4.0	30m	50uØ	10Ø	4.0mØ	30 †△				1.6pØ		R110	A
31	2N3689	200m	400M△	2.0m	♦J	40	40	4.0	30m	50uØ	10Ø	4.0mØ	30 †△				1.6pØ		R110	A
32	2N3690	200m	400M△	2.0m	♦J	40	40	4.0	30m	50uØ	10Ø	4.0mØ	30 †△				1.6pØ		R110	A
33	2N4274†	200m	400M§△	2.0m	♦J	30	12	4.5	100m	10uØ†	1.0Ø	100mØ	18 †#△				4p$Ø		R110	A
34	2N4275†	200m	400M§△	2.0m	♦J	40	15	4.5	100m	10uØ†	1.0Ø	100mØ	18 †#△				4p$Ø		R110	A
35	2N4294†	200m	400M§△	1.6m	§S	30	12	4.5	200m	.40uØ	1.0Ø	10mØ	120 †Ø				5pØ		u29	
36#	2SC464	200m	400M§	1.1m	§J	30	12	2.0	20m	500nØ	6.0Ø	1.0mØ	40				850f	PEØ	R103a	
37#	2SC465	200m	400M§	1.1m	§J	30	12	2.0	20m	500nØ	6.0Ø	1.0mØ	40				850f	PEØ	R103a	
38#	2SC752G†	200m	400M§	2.0m	♦J	40	15	5.0	200m	.25uØ	1.0Ø	10mØ	20 †△*				4.0p	PE†	RO67a	B
39#	2SC980	200m	400M§		♦J	70	50	5.0	100m	1.0uØ	1.0Ø	10mØ	70 †				3.0p	PE	RO67a	B
40▼#	2SC980A/G	200m	400M§		♦J	90	70	5.0	100m	500nØ	1.0Ø	10mØ	40 △†				5.0pØ	PE	R67a	B
41#	BF196	200m*	400M§	2.5m	♦J	40	30	4.0	25m		10	4.0m	80 †				.22p†	PLØ	MM10	C
42#	BFX18	200m	400M§△	1.1m	§J	35	35	4.0		50nØ	12Ø	3.0mØ	20 †△					PL	TO118	G
43#	BFX19	200m	400M§△	1.1m	§J	35	35	4.0		50nØ	12Ø	3.0mØ	20 †△					PL	RO38	
44#	BFX20	200m	400M§△	1.1m	§J	35	35	4.0		50nØ	12Ø	3.0mØ	20 †△					PL	TO118	G
45#	BFX21	200m	400M§△	1.1m	§J	35	35	4.0		50nØ	12Ø	3.0mØ	20 †△					PL	TO118	G
46	EN3011†	200m	400M§△	2.0m	♦J	30	30 Ø	5.0		.4u§Ø	.35Ø	10mØ	30 †#△				4pØ	DPE	TO106	A
47	S15657	200m	400M§△	2.0m	♦J	40	15	4.0		.05uØ	10Ø	2.0mØ	70 †#				4pØ	DPE	TO106	
48	2N4135	200m	425M§	1.1m	§J	30	30	3.0	30m	.05uØ	5.0Ø	4.0mØ	200 Ø				1.2pØ	Ø	TO72	G
49	2N5130	200m	450M§△	2.0m	♦J	30	12	1.0	50m	.05uØ	10Ø	8.0mØ	12 △				1.7p$		TO106	A
50#	2SC388	200m	450M§	2.0m	♦J	20		2.0	20m	500nØ	3.0Ø	8.0m	80				1.6p	PE	R67a	B
51	2N4295†	200m	500M§△	1.6m	§S	40	15	5.0	200m	.10uØ	1.0Ø	10mØ	120 †Ø				4pØ		u29	
52#	2SC384	200m	500M§	2.0m	♦J	20	18	2.0	50m	.50uØ	6.0Ø	1.0m	50 †*				1.2p	PE	RO67a	B
53#	2SC386	200m	500M§	2.0m	♦J	20		2.0	20m	500nØ	3.0Ø	8.0m	80				1.6p	PE	R67a	B
54#	BF206	200m	500M§	1.3m	§J	30	20	3.0	20m	1nØ	10Ø	2.0mØ	20 †△				.3p†	PE	TO72	G
55#	BF209	200m	500M§	1.3m	§J	30	20	3.0	20m	1nØ	10Ø	2.0mØ	15 †△				.3p†	PEØ	TO72	G
56	EN2369A†	200m	500M§△	2.0m	♦J	40	40 Ø	4.5	200m	.40u§	.35Ø	10mØ	40 †#△				4pØ	DPE	TO106	A
57#	NKT35219	200m	500M§△	1.1m	§J	20	15	3.0	50m	.10uØ	10Ø	1.0mØ	20 †△				1.8pØ		TO72	GØ
58	TIS56	200m	500M§△	1.3m	§A	30	20	3.0	30m	.05uØ	10Ø	4.0mØ	20 †△				.32p$Ø	PL	TO72	A
59	TIS57	200m	500M§△	1.3m	§A	30	20	3.0	30m	.05uØ	10Ø	4.0mØ	20 †△				.32p$Ø	PL	TO72	A
60#	BF197	200m*	550M§	2.5m	♦J	40	30	4.0	25m		10	7.0m	85 †				.32p†	PE	MM10	C
61#	121T2	200m	560M§	2.7m	#J	30	30	4.0	25m	.50uØ	9.5Ø	5.0mØ	110 †				1.8pØ	PLØ	TO98	
62	2N917A	200m	600M§△	1.1m	§S	30	15	3.0		1nØ	1.0Ø	3.0mØ	20 †#△				3pØ	Ø	TO72	G
63	2N918	200m	600M§△	1.1m	§J	30	15	3.0	50m	.01uØ	1.0Ø	3.0mØ	20 †△				2pØ	Ø	TO72	G
64	JAN2N918	200m	600M§△	1.1m	§J	30	15	3.0	50m	10nØ	1.0Ø	3.0mØ	20 †△				1.7pØ	Ø	TO72	G
65	2N2865	200m	600M§△	1.1m	§S	25	13	3.0	50m	.01uØ	10Ø	4.0mØ	20 △				2.5pØ	Ø	TO72	AØ
66	2N3563	200m	600M§△	2.0m	♦S	30	12	2.0	50m	.05uØ	10Ø	8.0mØ	20 #†△				1.7pØ	PE	R97a	
67	2N4252	200m	600M§	1.3m	§S	30	18	4.0	50m	.05uØ	10Ø	2.0mØ	50 †△				.45p$Ø		TO72	G
68	2N4253	200m	600M§	1.3m	§S	30	18	4.0	50m	.05uØ	10Ø	2.0mØ	30 †△				.45p$Ø		TO72	G
69	2N4292	200m	600M§△	1.6m	§J	30	15	3.0	50m	.50uØ	1.0Ø	3.0mØ	20 †△				2.2pØ	Ø	u29	
70	2N4293	200m	600M§△	1.6m	§J	30	15	3.0	50m	.50uØ	1.0Ø	3.0mØ	20 †△				2.2pØ	Ø	u29	
71#	2SC351	200m	600M§	1.6m	§J	40		2.0	20m	500nØ	10Ø	4.0m	50				1.4p	PL	R67a	B
72#	2SC375	200m	600M§	2.0m	♦J	20	12	2.0	50m	500nØ	10Ø	8.0m	100				1.5p	PE	R67a	B
73#	2SC385	200m	600M§	2.0m	♦J	20		2.0	20m	.50uØ	3.0Ø	8.0mØ	80 †				1.6p	PE	RO67a	B
74#	2SC786	200m	600M§		§J	20	12	2.0	20m	50uØ	5.0Ø	4.0mØ	50 †				.60p	PE	TO72	G
75#	AT338	200m	600M	2.0m	♦J	30	19	4.0	50m	.50uØ	10Ø	1.0mØ	40 †				2pØ	PE†	MM12a	D
76#	AT340	200m	600M	1.1m	§J	30	19	4.0	50m	500nØ	10Ø	1.0mØ	40 †				2.0pØ	PE	TO104	G
77	BF160	200m	600M§	2.0m	♦J	30	12	2.0		.10uØ	10Ø	3.0mØ	50 †#				.80p†	DPE	R97a	
78	BF162	200m	600M§	2.0m	♦J	40	40	4.0		.10uØ	10Ø	4.0mØ	70 †#				.8p†	DPLØ	R97a	
79	BF163	200m	600M§	2.0m	♦J	40	40	4.0		.10uØ	10Ø	4.0mØ	70 †#				.8p†	DPLØ	R97a	
80	BF164	200m	600M§	2.0m	♦J	40	40	4.0		.10uØ	10Ø	4.0mØ	70 †#				.8p†	DPLØ	R97a	
81#	BF213	200m	600M§	1.3m	§J	30	20	3.0	20m	10nØ	10Ø	2.0mØ	30 †				.3p†	PE	TO72	G
82▼	MD1T918	200m	600M§		§A	30	15	3.0	50m	10nØ	10Ø	4.0mØ	6.0 △				1.7pØ		TO122	P
83#	NKT16229	200m	600M§△	1.1m	§J	30	15	3.0	50m	.01uØ	10Ø	1.0mØ	20 †△				1.8pØ		TO72	GØ
84	NPC188	200m	600M§	1.3m	§A	50	50 §	5.0	50m	.01uØ	20Ø	10mØ	25 †△				.6p†	PE	TO72	J
85	NS6214	200m	600M§△	1.1m	§J	30	15	3.0	50m	.01uØ	1.0Ø	3.0mØ	20 †△				2pØ	Ø	X16	
86	SE5001	200m	600M§	2.0m	♦J	40	40	4.0		.50uØ	10Ø	4.0mØ	70 †				1.6pØ	PL	TO106	
87	SE5002	200m	600M§	2.0m	♦J	40	40	4.0		.50uØ	10Ø	4.0mØ	70 †				1.6pØ	PL	TO106	
88	SE5003	200m	600M§	2.0m	♦J	40	40	4.0		.50uØ	10Ø	4.0mØ	70 †				1.6pØ	PLØ	TO106	
89	JAN2N2708	200m	700M§△	1.1m	§J	35	20 *	3.0	50m	10nØ	15Ø	2.0mØ	30 △				2.0pØ	Ø	TO72	GØ
90	2N3662	200m	700M§△	2.6m	♦S	18	12	3.0	25m	.50uØ	10Ø	8.0mØ	20 †△				1.7pØ	Ø	TO98	B
91	2N3663	200m	700M§△	2.6m	♦S	30	12	3.0	25m	.50uØ	10Ø	8.0mØ	20 †△				1.7pØ	Ø	TO98	B
92#	BF212	200m	700M§	1.3m	§J	30	20	3.0	20m	10nØ	10Ø	2.0mØ	45 †				.25p†	PEØ	TO72	G
93#	ZT2708	200m	700M§△	1.1m	§J	35	20	3.0		.01uØ	15Ø	2.0mØ	30 △				1.5pØ	PL	TO72	
94♦	2N3478	200m	750M§△	1.1m	§S	30	15	2.0		20nØ	8.0Ø	2.0mØ	25 △				1.0p$Ø	Ø	TO104	G
95	2N3932	200m	750M§△	1.1m	§S	30	20	2.5		.01uØ	8.0Ø	2.0mØ	50 △				.6p$	Ø	R115	G
96	2N3933	200m	750M§△	1.1m	§S	40	30	2.5		.01uØ	8.0Ø	2.0mØ	60 △				.6p$	Ø	R115	G
97	2N917	200m	800M△	1.1m	§J	30	15	3.0		.00uØ	1.0Ø	3.0mØ	20 †△				1.7pØ	PL△	TO72	G
98#	2SC397	200m	800M§	1.3m	§J	20	12	2.0	50m	.50uØ	10Ø	8.0m	80				1.9p	PE	TO72	
99#	2SC602	200m	800M§		§J	30	20	3.0	30m	1.0uØ	6.0Ø	5.0m	60				1.3p	PE	TO72	
100	A492	200m	800M§	1.1m	§J	30	15	2.5	25m	10nØ	1.0Ø	2.0mØ	25 †△				2.0p$Ø	PEØ	TO72	G
101	BF152	200m	800M§	2.0m	♦J	30	12	2.0		.10uØ	10Ø	3.0mØ	50 †#				.80p†	DPE	R97a	
102	BF158	200m	800M§	2.0m	♦J	30	12	2.0		.10uØ	10Ø	4.0mØ	50 †#				.80p†	DPEØ	R97a	
103	BF159	200m	800M§	2.0m	♦J	40	20	2.0		.10uØ	10Ø	4.0mØ	50 †#				.80p†	DPEØ	R97a	
104	SE3005	200m	800M§△	2.0m	♦J	30	15	4.0		10nØ	10Ø	5.0mØ	45 †△#				.85pØ$	DPE	TO106	A
105	2N3600	200m	850M§△	1.1m	§S	30	15	3.0		.01uØ	6.0Ø	2.0mØ	200 Ø				1p$Ø	Ø	TO72	AØ
106	2N5179	200m	900M§△	1.1m	§S	20	12	2.5	50m	20nØ	6.0Ø	20mØ	25 △				1.0pØ	Ø	TO72	G
107#	2SC251	200m	900M§	1.6m	§J	30	15	3.0	30m	1.0uØ	6.0Ø	5.0m	50				1.0p	PEØ	TO72	G
108#	2SC251A	200m	900M§		§J	30	15	3.0	30m	1.0uØ	6.0Ø	5.0m	50				1.0p	PE	TO72	
109#	2SC252	200m	900M§	1.6m	§J	30	15	3.0	30m	1.0uØ	6.0Ø	5.0m	50				1.0p	PE	TO72	G
110#	2SC253	200m	900M§	1.6m	§J	30	15	3.0	30m	1.0uØ	6.0Ø	5.0m	50				1.0p	PEØ	TO72	G

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	2SC387	200m	900M§	2.0m	♦J	20	12	2.0	50m	500nØ	10Ø	8.0m	100				1.9pØ	PE	R67a	B
2#	BFX73	200m	900M§	1.1m	§J	30	15	3.0	50m	10nØ	1.0Ø	3.0 Ø	50 †#				1.0p	DPEØ	TO72	G
3#	BFY88	200m	900M§	1.3m	#J	40	25	3.5	25m	.05uØ	1.0Ø	5.0mØ	30 †Δ				8.0p	PE	TO18	
4	SE3001	200m	900M§	2.0m	♦J	30	12	2.0		.50uØ	10Ø	8.0mØ	50 †#				1.7pØ	DPL†	TO106	
5	SE3002	200m	900M§	2.0m	♦J	30	12	2.0		.50uØ	10Ø	8.0mØ	50 †#				1.7pØ	DPL†	TO106	
6	JAN2N2857	200m	1.0G§Δ	1.1m	§J	30	15	2.5		10nØ	6.0Ø	2.0mØ	220 Ø				1.5pØ	Ø	TO72	G
7	2N3572	200m	1.0G§Δ	1.1m	§S	25	13	3.0	50m	.01uØ	6.0Ø	5.0mØ	20 Δ					PEØ	TO72	G
8	2N3681	200m	1.0G§Δ	1.1m	§J	10	7.0	2.0	25m	.01uØ	6.0Ø	2.0mØ	20 Δ				.7pØ	†	TO72	G
9	2N3683	200m	1.0G§Δ	1.1m	§S	30	12	2.0	3.0m	.05uØ	10Ø	8.0mØ	30 Δ				2pØ	Ø	TO72	G
10	2N5031	200m	1.0G§Δ	1.1m	§S	15	10	3.0	20m	10nØ	6.0Ø	1.0mØ	25 †Δ				1.5p$Ø	Ø	TO72	GØ
11	2N5032	200m	1.0G§Δ	1.1m	§S	15	10	3.0	20m	10nØ	6.0Ø	1.0mØ	25 †Δ				1.5p$Ø	Ø	TO72	GØ
12#	2SC387G	200m	1.0G§	2.0m	♦J	20	12	2.0	50m	500nØ	3.0Ø	8.0mØ	60 †				1.9pØ	PE	R67a	B
13#	2SC567	200m	1.0G§		§J	30	15	3.0	20m	.10uØ	6.0Ø	2.0m	40 Δ				1pØ	PE	TO72	
14#	2SC611	200m	1.0G§	1.6mØ		20	15 Ø	3.0	20m	1.0uØ	10Ø	2.0m	80				2pØ	PE	TO72	
15	40294	200m	1.0G§Δ	1.1m	§J	30	15	2.5	40m	.01uØ	1.0Ø	3.0mØ	150 †Ø				1p$Ø	DPEØ	TO72	
16	40517	200m	1.0G§Δ	1.1m	§J	30	15	2.5	40m	.01uØ	6.0Ø	2.0mØ	50 Δ				1.5pØ	PEØ	TO72	G
17	40518	200m	1.0G§Δ	1.1m	§J	30	15	2.5	40m	.01uØ	6.0Ø	2.0mØ	50 Δ				1.5pØ	PEØ	TO72	G
18	A485	200m	1.0GΔ§	1.1m	§J	30		2.5	25m	.01uØ	1.0Ø	2.0mØ	150 †Ø				1.5pØ	PEØ	TO72	G
19#	BFY90	200m	1.0G§Δ	1.1m	§J	30	15	2.5	20m	.01uØ	6.0Ø	2.0mØ	50 Δ				1.8p	PE	TO18	
20#	BFY90B	200m	1.0G§Δ	1.1m	§J	28	15	2.5	20m		1.0Ø	3.0mØ	20 †Δ				1.7pØ	PEØ	TO72	G
21	K2109	200m	1.0G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
22	K2110	200m	1.0G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
23	K2111	200m	1.0G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
24	K2112	200m	1.0G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
25	K2113	200m	1.0G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
26	K2114	200m	1.0G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
27	K2115	200m	1.0G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
28	K2116	200m	1.0G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
29	K2117	200m	1.0G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
30	K2118	200m	1.0G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
31	K2119	200m	1.0G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
32	K2120	200m	1.0G§	1.1m	§J	30	12	2.0	30m	300nØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
33	K2121	200m	1.0G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
34	K2122	200m	1.0G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
35	K2123	200m	1.0G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
36	K2124	200m	1.0G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
37	K2125	200m	1.0G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
38	K2126	200m	1.0G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
39	K2127	200m	1.0G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
40	K2601C	200mØ	1.0G§	2.0m	#J	20	10	2.0	20m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		u35	
41	K2602C	200mØ	1.0G§	2.0m	#J	20	10	2.0	20m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		u35	
42	K2603C	200mØ	1.0G§	2.0m	#J	20	10	2.0	20m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		u35	
43	K2604C	200mØ	1.0G§	2.0m	#J	20	10	2.0	20m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		u35	
44	K2615	200m	1.0G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				2pØ		TO72	
45	K2616	200m	1.0G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				2pØ		TO72	
46▼	MM8006	200m	1.0G§Δ	1.1m	§J	15	10	3.0	20m	10nØ	6.0Ø	1.0mØ	25 †Δ				1.1p$	Ø	TO72	G
47▼	MM8007	200m	1.0G§Δ	1.1m	§J	15	10	3.0	20m	10nØ	6.0Ø	1.0mØ	25 †Δ				1.1p$	Ø	TO72	G
48#	ZT2857	200m	1.0G§Δ	1.1m	§J	30	15	2.5	20m	.01uØ	6.0Ø	2.0mØ	50 Δ				1.8pØ	PLØ	TO72	
49#	2SC313	200m	1.1G§	1.2m	§J	30	19	2.0	50m	.50uØ	10Ø	10mØ	40 †				1.0p	PE	R92b	H
50#	2SC684	200m	1.1G§			30	19	2.0	50m	.50u	10Ø	10mØ	40 †				1.1p	PE		
51#	2SC717	200m	1.1G§			30	19	2.0	50m	500u	10Ø	10mØ	11				1.0p	PE		
52	A490	200m	1.1G§	1.1m	§J	30	15	2.5	25m	10nØ	1.0Ø	2.0mØ	25 †Δ				1.5p$Ø	PEØ	TO72	G
53	2N2708	200m	1.2G§Ø	1.1m	§S	35	20	3.0		.01uØ	15Ø	2.0mØ	180 Ø				1p$Ø		TO72	G
54	2N3571	200m	1.2G§Δ	1.1m	§S	25	15	3.0	50m	.01uØ	6.0Ø	5.0mØ	20 Δ					PEØ	TO72	G
55	2N3880	200m	1.2G§Δ	1.1m	§S	30	15	2.5		.05uØ	6.0Ø	3.0mØ	50 Δ				.75pØ	Ø	TO72	G
56	40295	200m	1.2G§Ø	1.1m	§J	35	20	3.0	40m	.01uØ	2.0Ø	2.0mØ	200 †Ø				1p$Ø	PEØ	TO72	G
57#	BFX89	200m	1.2G§	1.1m	§J		15	2.5	25m	.01uØ	1.0Ø	2.0mØ	25 †Δ				.6p†	PEØ	TO72	G
58	2N3953	200m	1.3G§Δ	1.1m	§S	15		2.5	30m	.10uØ	6.0Ø	2.0mØ	40 Δ				1.8pØ	Ø	TO72	G
59	2N5024	200m	1.3G§Δ	1.1m	§J	20	10	4.0	15m	.10u#	1.0Ø	10m	25 †Δ				1.5p$	Δ	TO72	G
60	2N5053	200m	1.3G§Δ	1.1m	§S	30	15	3.0	25m	.01uØ	5.0Ø	2.0mØ	25 Δ				1p$Ø	Ø	TO72	GØ
61#	2SC568	200m	1.3G§		§J	30	15 Ø	3.0	20m	.50uØ	6.0Ø	2.0m	80				.65p	PE	TO72	G
62#	2SC612	200m	1.3G§	1.3mØ		35	15 Ø	2.0	20m	1.0uØ	10Ø	2.0m	80				2pØ	PE	TO72	
63	K2109A	200m	1.4G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
64	K2110A	200m	1.4G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
65	K2111A	200m	1.4G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
66	K2112A	200m	1.4G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
67	K2113A	200m	1.4G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
68	K2114A	200m	1.4G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
69	K2115A	200m	1.4G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
70	K2116A	200m	1.4G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
71	K2117A	200m	1.4G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
72	K2118A	200m	1.4G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
73	K2119A	200m	1.4G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
74	K2120A	200m	1.4G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
75	K2121A	200m	1.4G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
76	K2122A	200m	1.4G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
77	K2123A	200m	1.4G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
78	K2124A	200m	1.4G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
79	K2125A	200m	1.4G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
80	K2126A	200m	1.4G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
81	K2127A	200m	1.4G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
82	K2615A	200m	1.4G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				2pØ		TO72	
83	K2616A	200m	1.4G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				2pØ		TO72	
84	2N3570	200m	1.5G§Δ	1.1m	§S	30	15	3.0	50m	.01uØ	6.0Ø	5.0mØ	20 Δ					PEØ	TO72	G
85	2N5054	200m	1.5G§Δ	1.1m	§S	30	15	3.0	25m	.01uØ	5.0Ø	2.0mØ	25 Δ				1p$Ø	Ø	TO72	
86	TIXS10	200m	1.5G§	1.1m	§S	25	13	3.0	50m	.01u	6.0Ø	5.0mØ	20 Δ				1.7pØ	PE	u26	F
87	2N4934	200m	1.6G§Ø	1.1m	§S	40	30	3.0		.01uØ	8.0Ø	2.0mØ	170 †Ø				.25p$	Ø	TO104	J
88	2N4935	200m	1.6G§Ø	1.1m	§S	50	40	3.0		.01uØ	8.0Ø	2.0mØ	200 †Ø				.25p$	Ø	TO104	J
89	2N4936	200m	1.6G§Ø	1.1m	§S	50	40	3.0		.01uØ	8.0Ø	2.0mØ	250 †Ø				.25p$	Ø	TO104	J
90	K5001	200m	1.6G§	1.1m	§J	25	12	2.5	20m	.05uØ	1.0Ø	3.0mØ	100 †				1pØ	Ø	TO72	G
91	K5002	200m	1.6G§	1.1m	§J	25	12	2.5	20m	.05uØ	1.0Ø	3.0mØ	100 †				1pØ	Ø	TO72	G
92	K5003	200m	1.6G§	1.1m	§J	25	12	2.5	20m	.05uØ	1.0Ø	3.0mØ	100 †				1pØ	Ø	TO72	G
93#	BFS57	200mØ	1.7G	1.6mØ	§A	25	15	3.0	50m	10nØ	6.0Ø	5.0mØ	20 Δ				600f$	PE	u51	G
94	K2109B	200m	1.7G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
95	K2110B	200m	1.7G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
96	K2111B	200m	1.7G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
97	K2112B	200m	1.7G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
98	K2113B	200m	1.7G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
99	K2114B	200m	1.7G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
100	K2115B	200m	1.7G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
101	K2116B	200m	1.7G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
102	K2117B	200m	1.7G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
103	K2118B	200m	1.7G§	1.1m	§J	30	15	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
104	K2119B	200m	1.7G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
105	K2120B	200m	1.7G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
106	K2121B	200m	1.7G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
107	K2122B	200m	1.7G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
108	K2123B	200m	1.7G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
109	K2124B	200m	1.7G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
110	K2125B	200m	1.7G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	K2126B	200m	1.7G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
2	K2127B	200m	1.7G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				1.6pØ	Ø	TO72	
3	K2615B	200m	1.7G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				2pØ		TO72	
4	K2616B	200m	1.7G§	1.1m	§J	30	12	2.0	30m	.30uØ	1.0Ø	3.0mØ	50 †				2pØ		TO72	
5	2N2857	200m	1.9G§Ø	1.1m	§S	30	15	2.5	40m	.01uØ	6.0Ø	2.0mØ	50 Δ				1p$Ø	Ø	TO72	G
6	2N3839	200m	2.0G§Ø	1.1m	§S	30	15	2.5	40m	.01uØ	1.0Ø	3.0mØ	30 †Δ				1pØ	Ø	TO72	G
7	40296	200m	2.0G§Ø	1.1m	§J	30	15	2.5	40m	.01uØ	6.0Ø	2.0mØ	220 Ø				1p$Ø	PEØ	TO72	G
8#	BFS58	200mØ	2.4GØ	1.6mØ	$A	25	15	3.0	50m	20nØ	6.0Ø	5.0mØ	20 Δ				600f$	PE	u51	G
9#	2SC985	200m	3.2G§	1.6m	§J	20	15	3.0	40m	.50uØ	5.0Ø	15mØ	30 †Δ				1pØ	PE	X80	GJ
10▼	MPS5172	210m	120M§	1.9m	†J	25	25	5.0	100m	100n	10Ø	10mØ	100 Δ				10p$Ø	AN	TO92	A
11#	BSW19†	215m*	300M§Δ	1.7m	§J	35	30	5.0	100m	.05uØ	1.0Ø	10mØ	40 †Δ				6pØ	PE	TO18	AØ
12	2N5136	220m	40M§Δ	2.2m	♦J	30	20	3.0	500m	.10uØ	1.0Ø	150mØ	20 †#Δ				35p$		TO105	A
13	EN870	220m	50M§Δ	2.1m	♦J	100	60	7.0		100nØ	5.0Ø	1.0mØ	175 Δ	500nØb	30 Ø	1.3 Ø	20pØ	DPL	TO106	A
14	2N4944	220m	60M§Δ	2.2m	♦J	80	40	5.0	500m	.05uØ	1.0Ø	150mØ	40 †#Δ				25p$		TO106	A
15	2N4945	220m	60M§Δ	2.2m	♦J	80	60	5.0	500m	.05uØ	1.0Ø	150mØ	40 †#Δ				20p$		TO106	A
16	2N4946	220m	60M§Δ	2.2m	♦J	80	40	5.0	500m	.05uØ	1.0Ø	150mØ	100 †Δ				25p$		TO106	A
17	EN718A	220m	60M§Δ	2.1m	♦J	75	40 *Ø	7.0		50nØ	5.0Ø	1.0mØ	25 Δ	500nØb	34 Ø	5.0 Ø	25pØ	DPL	TO106	A
18	EN871	220m	60M§Δ	2.1m	♦J	100	60	7.0		100nØ	5.0Ø	1.0mØ	400 Δ	500nØb	30 Ø	5.0 Ø	20pØ	DPL	TO105	A
19	EN956	220m	70M§Δ	2.1m	♦J	75	40 *Ø	7.0		50nØ	5.0Ø	1.0mØ	50 Δ	500nØb	34 Ø	5.0 Ø	25pØ	DPL	TO106	A
20#	BF195	220m	200M§	2.2m	♦J	30	20		30m		10Ø	1.0mØ	67 †					PEØ†	MM10	C
21#	BC167Ø	220m	250M§	2.2m	♦J	45	45	5.0	100m	700pØ	5.0Ø	2.0mØ	125 Δ*					PE†	X73	D
22#	BC168Ø	220m	250M§	2.2m	♦J	20	20	5.0	100m	1.0n	5.0Ø	2.0mØ	125 Δ*					PE†	X73	D
23#	BC237	220m	250M§	2.2m	♦J	45	45	5.0	100m	.7nØ	5.0Ø	2.0mØ	125 Δ*					PE†	X73	A
24#	BC238	220m	250M§	2.2m	♦J	20	20	5.0	100m	1n	5.0Ø	2.0mØ	125 Δ*					PE†	X73	A
25#	PL4051†	220m	250M§Δ	1.5m	§S	60	30	5.0	800m	10nØ	10Ø	1.0mØ	12 †Δ				8pØ	PE	u51	
26#	PL4052†	220m	250M§Δ	1.5m	§S	75	40	6.0	800m	10nØ	10Ø	1.0mØ	30 Δ				8pØ	PEØ	u51	
27#	PL4053†	220m	250M§Δ	1.5m	§S	60	30	5.0	800m	10nØ	10Ø	1.0mØ	25 †Δ				8pØ	PE	u51	
28#	PL4055†	220m	250M§Δ	1.5m	§S	60	30	5.0	800m	10nØ	10Ø	1.0mØ	50 †Δ				8pØ	PE	u51	
29#	BF194	220m	260M§	2.2m	♦J	30	20		30m		10Ø	1.0mØ	115 †					PEØ†	MM10	C
30#	BC147	220m	300M§	2.2m	♦J		45	6.0	100m	.02u§Ø	5.0Ø	2.0mØ	330	30u	4.5k	2.0		EØ	MM10	A
31#	BC147A	220m	300M§	2.2m	♦J	50	45	6.0	100m	5.0uØ	5.0Ø	2.0mØ	220	18u	2.7k	1.5	2.5p	PEØ	MM10	A
32#	BC147B	220m	300M§	2.2m	♦J	50	45	6.0	100m	5.0uØ	5.0Ø	2.0mØ	330	30u	4.5k	2.0	2.5p	PEØ	MM10	A
33#	BC148	220m	300M§	2.2m	♦J		20	5.0	100m	.02u§Ø	5.0Ø	2.0mØ	330	30u	4.5k	2.0		EØ	MM10	A
34#	BC148A	220m	300M§	2.2m	♦J	30	20	5.0	100m	5.0uØ	5.0Ø	2.0mØ	220	18u	2.7k	1.5	2.5p	PEØ	MM10	A
35#	BC148B	220m	300M§	2.2m	♦J	30	20	5.0	100m	5.0uØ	5.0Ø	2.0mØ	330	30u	4.5k	2.0	2.5p	PEØ	MM10	A
36#	BC148C	220m	300M§	2.2m	♦J	30	20	5.0	100m	5.0uØ	5.0Ø	2.0mØ	600	60u	8.7k	3.0	2.5p	PEØ	MM10	A
37#	BC149	220m	300M§	2.2m	♦J		20	5.0	100m	.02u§Ø	5.0Ø	2.0mØ	330	30u	4.5k	2.0		EØ	MM10	A
38#	BC149B	220m	300M§	2.2m	♦J	30	20	5.0	100m	5.0uØ	5.0Ø	2.0mØ	330	30u	4.5k	2.0	2.5p	PEØ	MM10	A
39#	BC149C	220m	300M§	2.2m	♦J	30	20	5.0	100m	5.0uØ	5.0Ø	2.0mØ	600	60u	8.7k	3.0	2.5p	PEØ	MM10	A
40#	BC169Ø	220m	300M§	2.2m	♦J	20	20	5.0	100m	1.0n	5.0Ø	2.0mØ	240 Δ*					PE†	X73	D
41#	BC239	220m	300M§	2.2m	♦J	20	20	5.0	100m	1n	5.0Ø	2.0mØ	240 Δ*					PE†	X73	A
42#	PL4054†	220m	300M§Δ	1.5m	§S	75	40	6.0	800m	10nØ	10Ø	1.0mØ	50 Δ				8pØ	PEØ	u51	
43	SE6022†	220m	400M§	2.2m	♦J	60	60	6.5	1	.10uØ	10Ø	1.0mØ	100 †				11p$	DPEΔ	TO106	A
44	SE6023†	220m	400M§	2.2m	♦J	80	80	6.5	1	.10uØ	10Ø	1.0mØ	120 †				11p$	DPEΔ	TO106	A
45	A3T929	225m	30M§Δ	1.8m	$S	45	45	6.0	50m	.01u	5.0Ø	1.0mØ	60 Δ	40uØ	11kØ	8 Ø	6pØ	PLTØ	u44	A
46	A3T930	225m	30M§Δ	1.8m	$S	45	45	6.0	50m	.01u	5.0Ø	1.0mØ	150 Δ	60uØ	18kØ	8 Ø	6pØ	PL†	u44	A
47	A3T2484	225m	60M§Δ	1.8m	$S	60	60	6.0	50m	.01uØ	5.0Ø	1.0mØ	150 Δ	100uØ	30kØ	8 Ø	6pØ	PL†	u44	A
48	MMT930	225m	60M§Δ	2.0m	†J	60	45	6.0	50m	10nØ	5.0Ø	1.0mØ	150 †Δ				6pØ	ANTØ	u43	D
49	MMT2484	225m	60M§Δ	2.0m	†J	60	60	6.0	50m	10nØ	5.0Ø	1.0mØ	250 †Δ				6pØ	ANTØ	u43	D
50#	2SC28	225m	100M	1.8m	§J	40			50m	1.0uØ	10Ø	10m	30				4.0p	ME	TO5	
51	MMT2222†	225m	200M§Δ	2.0m	†J	60	30	5.0		50nØ	10Ø	1.0mØ	50 †Δ				3.5p	ANT	u43	D
52	PET8005	225m	200M§	2.3m	♦J	30	30	4.0	100m	.05uØ	10Ø	2.0mØ	30 †Δ					PL	R110	A
53	PET8005A	225m	200M§	2.3m	♦J	30	30	4.0	100m	.05uØ	10Ø	2.0mØ	30 †Δ					PLØ	R110	A
54	PET8006	225m	200M§	2.3m	♦J	30	30	4.0	100m	.05uØ	10Ø	2.0mØ	55 †Δ					PL	R110	A
55	PET8006A	225m	200M§	2.3m	♦J	30	30	4.0	100m	.05uØ	10Ø	2.0mØ	55 †Δ					PLØ	R110	A
56	PET8007	225m	200M§	2.3m	♦J	30	30	4.0	100m	.05uØ	10Ø	2.0mØ	100 †Δ					PL	R110	A
57	PET8007A	225m	200M§	2.3m	♦J	30	30	4.0	100m	.05uØ	10Ø	2.0mØ	100 †Δ					PLØ	R110	A
58	MMT3903†	225m	250M§Δ	2.0m	†J	60	40	6.0	200m	.05uØ	10Ø	1.0mØ	100	10u	3.0k	2.0	4pØ	ANØ	u23c	F
59	A3T2221†	225m	300M§	1.8m	$S	60	30	5.0	500m	.01uØ	10Ø	1.0mØ	25 †Δ				4.0p	PET	u44	A
60	A3T2221A†	225m	300M§	1.8m	$S	75	40	6.0	500m	.01uØ	10Ø	10mØ	35 Δ	100uØ	1kØ	2.5 Ø	4.0p	PET	u44	A
61	MMT3904†	225m	300M§Δ	2.0m	†J	60	40	6.0	200m	.05uØ	10Ø	1.0mØ	200	10u	3.0k	2.0	4pØ	ANØ	u23c	F
62	A3T2222†	225m	350M§	1.8m	$S	60	30	5.0	500m	.01uØ	10Ø	1.0mØ	50 †Δ				4.0p	PET	u44	A
63	A3T2222A†	225m	350M§	1.8m	$S	75	40	6.0	500m	.01uØ	10Ø	10mØ	75 Δ	200uØ	1.2kØ	4 Ø	4.0p	PET	u44	A
64	A3T3011†	225m	400M§Δ	1.8m	$S	30	12	5.0	200m	.40u§	.35Ø	10mØ	30 †Δ#				4pØ	PE†	u44	A
65	A3T918	225m	600M§Δ	1.8m	$S	30	15	3.0	50m	.01uØ	1.0Ø	3.0mØ	20 †Δ				3p$Ø	PE†Ø	u44	A
66	MMT918	225m	600M§Δ	2.0m	†J	30	15	3.0	50m	.01uØ	1.0Ø	3.0mØ	20 †#Δ				3pØ	ANØ	u43	D
67	MMT2857	225m	1.3G§Δ	2.0m	†J	30	15	3.0	40m	50nØ	1.0Ø	3.0mØ	30 †Δ				1p$Ø	ANTØ	u43	D
68#	BSW88†	230m*	200M§Δ	2.9m	♦J	35	30	5.0	100m	.05uØ	1.0Ø	10mØ	100 †Δ*				6pØ	PE†	X73	C
69#	BSW89†	230m*	200M§Δ	2.9m	♦J	35	30	5.0	100m	.05uØ	1.0Ø	10mØ	100 †Δ*				6pØ	PE†	X73	A
70#	BSX81†	230m*	200M§Δ	2.9m	♦J	35	30	5.0	100m	.05uØ	1.0Ø	10mØ	100 †Δ*				6pØ	PE†	MM11	A
71#	BFX60	230m	550M§Ø	1.5m	§J	40	25	4.0	25m									PE	TO72	J
72#	BF208	230m	600M§	1.5m	§J	40	25	4.0	25m	.10uØ	10Ø	7.0mØ	100 †				.23pt	PE	TO72	G
73#	NPC173	230m	600M§	1.5m	§S	40	25	4.0	25m	.01u	10Ø	7.0mØ	88				2.0p	PL	TO72	J
74#	BFX59	230m	900M§Ø	1.5m	§J	30	20	3.0	100m	.01uØ	10Ø	20mØ	120					PE	TO72	G
75#	BFW70	240m	750MΔ§	1.6m	§J	30	30	4.0			10Ø	10mØ	75 †#				.3pØ†			
76▼#	BF271	240m	1.0G§	1.6m	§J	40	40	4.0	30m	50n§	15Ø	10mØ	55 †Δ				1.5p	DPE	TO72	
77	2N1990R	250m		2.0m	$S	100		3.0		1u#Ø.50Ø		2.0mØ	25 Δ					PL	TO18	AØ
78#	2SC815	250m		2.5m	♦J	60	45	5.0	200m	.20uØ	10Ø	10mØ	80 †						TO92	A
79▼#	2SC924	250m			§J	30	15	5.0	50m	100n	3.0Ø	500uØ	100 †					PE	TO92	B
80▼#	2SD227	250m			§J	30	15	5.0	300m	100n	1.0Ø	300mØ	120 †					PE	TO92	B
81#	BSW32	250m		2.0m	$S	100	80	6.0	30m	1.0u	5.0Ø	10mØ	40 †Δ					PL	TO92	
82#	BSW70	250m		1.7m	§J	100	60	5.0	50m	1.0u#	5.0Ø	20mØ	50 †Δ					PE	TO18	AØ
83	CI2711	250m		2.0m	§J	18	18	5.0	100m	500n	4.5Ø	2.0mØ	30 Δ					DPL†	R127a	D
84	CI2712	250m		2.0m	§J	18	18	5.0	100m	500n	4.5Ø	2.0mØ	80 Δ					DPL†	R127a	D
85	CI2713	250m		2.0m	§J	18	18	5.0	200m	500n	4.5Ø	2.0mØ	30 Δ				5.0pØ	DPL†	R127a	D
86	CI2714	250m		2.0m	§J	18	18	5.0	200m	500n	4.5Ø	2.0mØ	80 Δ				5.0pØ	DPL†	R127a	D
87	CI2923	250m		2.0m	§J	25	25	5.0	100m	500n	10Ø	2.0mØ	90 Δ				12pØ	DPL†	R127a	D
88	CI2924	250m		2.0m	§J	25	25	5.0	100m	500n	10Ø	2.0mØ	150 Δ				12pØ	DPL†	R127a	D
89	CI2925	250m		2.0m	§J	25	25	5.0	100m	500n	10Ø	2.0mØ	235 Δ				12pØ	DPL†	R127a	D
90	CI2926	250m		2.0m	§J	25	25	5.0	100m	500n	10Ø	2.0mØ	35 Δ*				12pØ	DPL†	R127a	D
91	CI3390	250m		2.0m	§J	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	400 Δ				10pØ	DPL†	R127a	D
92	CI3391	250m		2.0m	§J	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	250 Δ				10pØ	DPL†	R127a	D
93	CI3391A	250m		2.0m	§J	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	250 Δ				10pØ	DPL†	R127a	D
94	CI3392	250m		2.0m	§J	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	150 Δ				10pØ	DPL†	R127a	D
95	CI3393	250m		2.0m	§J	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	90 Δ				10pØ	DPL†	R127a	D
96	CI3394	250m		2.0m	§J	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	55 Δ				10pØ	DPL†	R127a	D
97	CI3395	250m		2.0m	§J	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	150 Δ*				12pØ	DPL†	R127a	D
98	CI3396	250m		2.0m	§J	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	90 Δ*				12pØ	DPL†	R127a	D
99	CI3397	250m			§J	25	25	5.0	100m	100nØ	4.5Ø	2.0 Ø	55 Δ*				12pØ	DPL†		B
100	CI3398	250m		2.0m	§J	25	25	5.0	100m	100nØ	4.5Ø	2.0mØ	55 Δ*				12pØ	DPL†	R127a	D
101	CS2711	250m		2.0m	§J	18	18	5.0	100m	.50u	4.5Ø	2.0mØ	30 Δ				12pØ	DPL†	TO106	A
102	CS2712	250m		2.0m	§J	18	18	5.0	100m	.50u	4.5Ø	2.0mØ	80 Δ				4.5p	DPL†	TO106	A
103	CS2713	250m		2.0m	§J	18	18	5.0	200m	.50u	4.5Ø	2.0mØ	30 Δ					DPL†	TO106	A
104	CS2714	250m		2.0m	§J	18	18	5.0	200m	.50u	4.5Ø	2.0mØ	80 Δ					DPL†	TO106	A
105	CS2715	250m		2.0m	§J	18	18	5.0	50m	.50u	4.5Ø	2.0mØ	30 Δ				5pØ	DPL†	TO106	A
106	CS2716	250m		2.0m	§J	18	18	5.0	50m	.50u	4.5Ø	2.0mØ	80 Δ				5pØ	DPL†	TO106	A
107	CS2921	250m		2.0m	§J	25	25	5.0	100m	.50u	10Ø	2.0mØ	35 Δ				12pØ	PL†	TO106	A
108	CS2922	250m		2.0m	§J	25	25	5.0	100m	.50u	10Ø	2.0mØ	55 Δ				12pØ	PL†	TO106	A
109	CS2923	250m		2.0m	§J	25	25	5.0	100m	.50u	10Ø	2.0mØ	90 Δ				12pØ	PL†	TO106	A
110	CS2924	250m		2.0m	§J	25	25	5.0	100m	.50u	10Ø	2.0mØ	150 Δ				12pØ	PL†	TO106	A

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	CS2925	250m		2.0m	$J	25	25	5.0	100m	.50u	10Ø	2.0mØ	235 Δ				12pⵔ	PL†	TO106	A
2	CS3390	250m		2.0m	$J	25	25	5.0	100m	.10uØ	4.5Ø	2.0mØ	400 Δ				10pⵔ	PL†	TO106	A
3	CS3391	250m		2.0m	$J	25	25	5.0	100m	.10uØ	4.5Ø	2.0mØ	250 Δ				10pⵔ	PL†	TO106	A
4	CS3391A	250m		2.0m	$J	25	25	5.0	100m	.10uØ	4.5Ø	2.0mØ	250 Δ				10pⵔ	DPLØ	TO106	A
5	CS3392	250m		2.0m	$J	25	25	5.0	100m	.10uØ	4.5Ø	2.0mØ	150 Δ				10pⵔ	PL†	TO106	A
6	CS3393	250m		2.0m	$J	25	25	5.0	100m	.10uØ	4.5Ø	2.0mØ	90 Δ				10pⵔ	PL†	TO106	A
7	CS3394	250m		2.0m	$J	25	25	5.0	100m	.10uØ	4.5Ø	2.0mØ	55 Δ				10pⵔ	PL†	TO106	A
8	CS3395	250m		2.0m	$J	25	25	5.0	100m	.10uØ	4.5Ø	2.0mØ	150 Δ*				12pⵔ	DPL	R97a	A
9	CS3396	250m		2.0m	$J	25	25	5.0	100m	.10uØ	4.5Ø	2.0mØ	90 Δ*				12pⵔ	DPL	R97a	A
10	CS3397	250m		2.0m	$J	25	25	5.0	100m	.10uØ	4.5Ø	2.0mØ	55 Δ*				12pⵔ	DPL	R97a	A
11	CS3398	250m		2.0m	$J	25	25	5.0	100m	.10uØ	4.5Ø	2.0mØ	55 Δ*				12pⵔ	DPL	R97a	A
12	CS3707	250m		2.0m	$J	30	30	6.0	30m	.10uØ	5.0Ø	.10mØ	100 Δ					DPLØ	TO106	A
13	CS3708	250m		2.0m	$J	30	30	6.0	30m	.10uØ	5.0Ø	.10mØ	45 Δ					DPLØ	TO106	A
14	CS3709	250m		2.0m	$J	30	30	6.0	30m	.10uØ	5.0Ø	.10mØ	45 Δ					DPLØ	TO106	A
15	CS3710	250m		2.0m	$J	30	30	6.0	30m	.10uØ	5.0Ø	.10mØ	90 Δ					DPLØ	TO106	A
16	CS3711	250m		2.0m	$J	30	30	6.0	30m	.10uØ	5.0Ø	.10mØ	180 Δ					DPLØ	TO106	A
17	2N619	250m	.20M	1.9m	$	50		20	50m	.10u	1.5Ø	5.0mØ	14				65p	A		
18	2N620	250m	.30M	1.9m	$	50		20	50m	.10u	1.5Ø	5.0mØ	25				65p	A		
19	2N621	250m	.40M	1.9m	$	50		20	50m	.10u	1.5Ø	5.0mØ	50				65p	A		
20	2N2617	250m	1.0MΔ	2.0m	$S	25	25	20	100m	.10uØ	6.0Ø	1.0mØ	25 Δ		3.0kⵔ		80p	AØ	R8	
21#	ZTX330	250m	30MΔ§	2.5m	♦A	30	30	5.0	500m	200n	5.0Ø	100uØ	60 Δ				8.0p	PLØ	X59	F
22#	ZTX331	250m	30MΔ§	2.5m	♦A	45	45	5.0	500m	200n	5.0Ø	1.0mØ	60 Δ				8.0p	PLØ	X59	F
23	2N4286	250m	40M§Δ	2.0m	$S	30	25	6.0	100m	50nØ	5.0Ø	1.0m	600 ⵔ	1.2uⵔb	40 ⵔ	10	6.0pⵔ		u29	
24	2N4287	250m	40M§Δ	2.0m	$S	45	45	7.0	100m	10nØ	5.0Ø	1.0m	600 ⵔ	1.2uⵔb	40 ⵔ	10	6.0pⵔ	Ø	u29	
25	2N2981*	250m	50M§Δ	1.4m	§J	100	60	7.0	500m	.01uØ	5.0Ø	1.0mØ	40 Δ	30uⵔ	6kⵔ		15pⵔ	*	L2j	
26	2N2982*	250m	50M§Δ	1.4m	§J	100	60	7.0	500m	.01uØ	5.0Ø	1.0mØ	40 Δ	30uⵔ	6kⵔ		15pⵔ	*	L2j	
27	2N2972	250m	60M§Δ	1.4m	§J	45	45	6.0	30m	10n	5.0Ø	10uØ	60 †Δ	1.0uⵔb	32 ⵔ		6.0pⵔ	*	L2j	
28	2N2973	250m	60M§Δ	1.4m	§J	45	45	6.0	30m	10n	5.0Ø	10uØ	150 †Δ	1.0uⵔb	32 ⵔ		6.0pⵔ	*	L2j	
29	2N2974*	250m	60M§Δ	1.4m	§J	45	45	6.0	30m	10n	5.0Ø	10uØ	60 †Δ	1.0uⵔb	32 ⵔ		6.0pⵔ	*	L2j	
30	2N2975*	250m	60M§Δ	1.4m	§J	45	45	6.0	30m	10n	5.0Ø	10uØ	150 †Δ	1.0uⵔb	32 ⵔ		6.0pⵔ	*	L2j	
31	2N2976*	250m	60M§Δ	1.4m	§J	45	45	6.0	30m	10n	5.0Ø	10uØ	60 †Δ	1.0uⵔb	32 ⵔ		6.0pⵔ	*	L2j	
32	2N2977*	250m	60M§Δ	1.4m	§J	45	45	6.0	30m	10n	5.0Ø	10uØ	150 †Δ	1.0uⵔb	32 ⵔ		6.0pⵔ	*	L2j	
33	2N2978*	250m	60M§Δ	1.4m	§J	60	60	6.0	30m	2.0nØ	5.0Ø	10uØ	60 †Δ	1.0uⵔb	32 ⵔ		6.0pⵔ	*	L2j	
34	2N2979*	250m	60M§Δ	1.4m	§J	60	60	6.0	30m	2.0nØ	5.0Ø	10uØ	150 †Δ	1.0uⵔb	32 ⵔ		6.0pⵔ	*	L2j	
35	2N2980*	250m	60M§Δ	1.4m	§J	100	60	7.0	500m	2.0nØ	5.0Ø	1.0mØ	50 †Δ	20uⵔ	5.0kⵔ		15pⵔ	*	L2j	
36#	ME4001	250m	60M§Δ	2.0m	$J	30		8.0	100m	.05uØ	10Ø	1.0mØ	60 †Δ				3pⵔ	DP†	TO106	A
37#	ME4002	250m	60M§Δ	2.0m	$J	30		8.0	100m	.05uØ	10Ø	1.0mØ	200 †Δ				3pⵔ	DP†	TO106	A
38#	ME4003	250m	60M§Δ	2.0m	$J	30		8.0	100m	.05uØ	10Ø	1.0mØ	300 †Δ				3pⵔ	DP†	TO106	A
39	2N3793	250m	100M§Δ	2.5m	♦S	40	20	5.0	500m	.50uØ	10Ø	1.0mØ	10 †Δ				10pⵔ		u29	
40	2N3794	250m	100M§Δ	2.5m	♦S	40	20	5.0	500m	.50uØ	10Ø	1.0mØ	35 †Δ				10pⵔ		u29	
41#	AT329	250m	100M§	2.5m	♦J	20	20	5.0	250m	.50u	2.0Ø	150m	60 #†Δ				6.0p	PL†	MM12a	D
42▼#	AT336	250m	100MΔ§	2.5m	♦J	20	20	5.0	250m	500n	2.0Ø	150mØ	60 Δ					PL	MM12a	D
43#	ME1075	250m	100M§Δ	2.0m	$J	75		4.0		.50uØ	10Ø	10mØ	20 †Δ				4pⵔ	DP†	TO106	A
44#	2SC368	250m	150M§	1.7m	§J	25	25 §	5.0	100m	.10uØ	10Ø	1.0m	250 †				1.5p	PE	TO18	
45▼#	2SC899	250m	150M§Δ		§J	50	25	5.0	30m	100n	3.0Ø	500uØ	115 †					PE	TO92	B
46	2N957	250m	200M§Δ	2.0m	$J	40	20	5.0		.10uØ	5.0Ø	10mØ	45 †#Δ				6pⵔ		TO18	AØ
47	2N3825	250m	200M§Δ	2.5m	$S	30	15	4.0	100m	.10uØ	10Ø	2.0mØ	20 †Δ				3.5pⵔ	Ø	X20	
48#	2SC395A†	250m	200M§Δ	2.0m	§J	20	12	5.0	400m	1.0uØ	1.0Ø	10mØ	60 †				4.0p	PE	TO18	AØ
49#	2SC714†	250m	200M§	2.5m	♦J	70	40	5.0	200m	.10uØ	6.0Ø	10mØ	60 †#				7.0p	PE†	TO92	D
50	MD2218F*	250m	200M§Δ	1.5m	§J	60	30	5.0	600m	.02u#Ø	10Ø	150mØ	40 †Δ#				8pⵔ	AN△	TO89	
51#	ME1001	250m	200M§Δ	2.0m	$J	45		4.0		.05uØ	10Ø	10mØ	40 †Δ				3pⵔ	DP†	TO106	F
52#	ME1002	250m	200M§Δ	2.0m	$J	45		4.0		.05uØ	10Ø	10mØ	100 †Δ				3pⵔ	DP†	TO106	F
53#	ME2001	250m	200M§Δ	2.0m	$J	35		4.0	100m	.05uØ	1.0Ø	10mØ	40 †Δ				5pⵔ	DP†	TO106	A
54#	ME2002	250m	200M§Δ	2.0m	$J	35		4.0	100m	.05uØ	1.0Ø	10mØ	100 †Δ				5pⵔ	DP†	TO106	A
55	SE1010	250m	200M§Δ	2.5m	♦J	30	15	4.0		.50uØ	10Ø	2.0mØ	35 †#				3.5pⵔ	DPE	TO106	
56#	AT326	250m	220M§	2.5m	♦J	30	25	6.0	30m	.10u	10Ø	1.0m	60 #†Δ				2.8p	PE†	MM12a	D
57#	AT327	250m	220M§	2.5m	♦J	30	25	6.0	30m	.10u	10Ø	1.0m	200 #†Δ				2.8p	PE†	MM12a	D
58#	AT328	250m	220M§	2.5m	♦J	30	25	6.0	30m	.10u	10Ø	1.0m	200 #†Δ				2.8p	PE†Ø	MM12a	D
59#	AT330	250m	220M§	2.5m	♦J	30	25	6.0	30m	.10u	10Ø	1.0m	60 #†Δ				2.8p	PE†	MM12a	A
60#	AT337	250m	220M§	2.5m	♦J	30	25	6.0	30m	.10uØ	10Ø	1.0mØ	350 †#				2.8p	PE†Ø	MM12a	D
61#	AT318	250m	230M§	2.5m	♦J	45	30	5.0	30m	.50uØ	12Ø	2.0mØ	40 #†Δ				3.5p	PL†	MM12a	D
62#	AT319	250m	230M§	2.5m	♦J	45	30	5.0	30m	.50uØ	12Ø	2.0mØ	40 #†Δ				3.5p	PL†	MM12a	D
63#	AT321	250m	230M§	2.5m	♦J	45	30	5.0	30m	.50uØ	12Ø	2.0mØ	100 #†Δ				3.5p	PL†	MM12a	D
64#	AT322	250m	230M§	2.5m	♦J	35	20	5.0	30m	.50uØ	12Ø	2.0mØ	40 #†Δ				3.5p	PL†	MM12a	D
65#	AT323	250m	230M§	2.5m	♦J	35	20	5.0	30m	.50uØ	12Ø	2.0mØ	40 #†Δ				3.5p	PL†	MM12a	D
66#	AT324	250m	230M§	2.5m	♦J	35	20	5.0	30m	.50uØ	12Ø	2.0mØ	100 #†Δ				3.5p	PL†	MM12a	D
67#	AT325	250m	230M§	2.5m	♦J	35	20	5.0	30m	.50u	12Ø	2.0mØ	20 #†Δ				3.5p	PL†	MM12a	D
68#	AT335	250m	230M§	2.5m	♦J	35	20	5.0	30m	.50u	12Ø	2.0m	20 #†Δ				3.5p	PL		
69▼#	AT339	250m	230MΔ§	2.5m	♦J	60	60	5.0	100m	100n	12Ø	2.0mØ	100 Δ				3.5pⵔ	PL	MM12a	D
70#	AT341	250m	230M§	2.5m	♦J	45	40	5.0	30m	500nØ	12Ø	2.0mØ	100 †Δ#				3.5p	PL†	MM12a	D
71▼#	AT347	250m	230MΔ§	2.5m	♦J	50	50	5.0	100m	100n	12Ø	2.0mØ	40 Δ				3.5pⵔ	PL	MM12a	D
72▼#	AT348	250m	230MΔ§	2.5m	♦J	45	45	5.0	100m	100n	12Ø	2.0mØ	40 Δ				3.5pⵔ	PL	MM12a	D
73▼#	AT349	250m	230MΔ§	2.5m	♦J	45	45	5.0	100m	100n	12Ø	2.0mØ	100 Δ				3.5pⵔ	PL	MM12a	D
74	2SC105	250m	250M§	1.7m	§J	30	30 §	5.0	80m	5nØ	1.0Ø	10m	60 †				4.0p	PE	TO18	
75#	2SC619†	250m	250M§	2.5m	♦J	30	25	5.0	200m	1.0uØ	6.0Ø	10mØ	110 †#				7.0p	PE†	TO92	D
76#	2SC620	250m	250M§	2.5m	♦J	50	30	5.0	200m	1.0uØ	6.0Ø	10mØ	90 †#				7.0p	PE†	TO92	D
77#	2SC773	250m	250M§	2.5m	♦J	50	30	5.0	200m	1.0uØ	6.0Ø	10mØ	35 †#Δ				7.0p	PE†	TO92	D
78#	2SC838	250m	250M§	2.5m	♦J	50	25	5.0	30m	.20uØ	3.0Ø	.50mØ	75 †				1.8p		TO92	A
79#	2SC839	250m	250M§	2.5m	♦J	50	25	5.0	30m	.20uØ	3.0Ø	.50mØ	75 †				2.5p	Ø	TO92	A
80	MD2218AF*	250m	250M§Δ	1.5m	§J	75	40	6.0	600m	.02u#Ø	10Ø	150mØ	40 †Δ#				8pⵔ	AN△	TO89	
81	MD2219F*	250m	250M§Δ	1.5m	§J	60	30	5.0	600m	.02u#Ø	10Ø	150mØ	100 †Δ#				8pⵔ	AN△	TO89	
82	MD3725F*	250m	250M§Δ	1.5m	§J	65	40	6.0	1	1.7uØ	1.0Ø	100mØ	50 †Δ				10pⵔ	AN△	L2f	
83#	2SC400†	250m	300M§	1.7m	§J	30	18	5.0	100m	.50uØ	10Ø	10m	30 †Δ*				4.0p	PE	TO18	AØ
84♦	A747A	250m	300M§	2.5m	♦J	50	45	6.0	100m	5.0uØ	5.0Ø	2.0mØ	220	18u	2.7k	1.5	2.5p$	PL	MM10	A
85♦	A747B	250m	300M§	2.5m	♦J	50	45	6.0	100m	5.0uØ	5.0Ø	2.0mØ	330	30u	4.5k	2.0	2.5p$	PL	MM10	A
86♦	A748B	250m	300M§	2.5m	♦J	30	20	5.0	100m	5.0uØ	5.0Ø	2.0mØ	330	30u	4.5k	2.0	2.5p$	PL	MM10	A
87♦	A748C	250m	300M§	2.5m	♦J	30	20	5.0	100m	5.0uØ	5.0Ø	2.0mØ	600	60u	8.7k	3.0	2.5p$	PL	MM10	A
88♦	A749B	250m	300M§	2.5m	♦J	30	20	5.0	100m	5.0uØ	5.0Ø	2.0mØ	330	30u	4.5k	2.0	2.5p$	PLØ	MM10	A
89♦	A749C	250m	300M§	2.5m	♦J	30	20	5.0	100m	5.0uØ	5.0Ø	2.0mØ	600	60u	8.7k	3.0	2.5p$	PLØ	MM10	A
90	MD708AF*	250m	300M§Δ	1.5m	§J	40	15	5.0	200m	.02uØ	1.0Ø	10mØ	40 †Δ#				5pⵔ	AN△	TO89	
91	MD708BF*	250m	300M§Δ	1.5m	§J	40	15	5.0	200m	.02uØ	1.0Ø	10mØ	40 †Δ#				5pⵔ	AN△	TO89	
92	MD708F*	250m	300M§Δ	1.5m	§J	40	15	5.0	200m	.02uØ	1.0Ø	10mØ	40 †Δ#				5pⵔ	AN△	TO89	
93	MD2219AF*	250m	300M§Δ	1.5m	§J	75	40	6.0	600m	.02u#Ø	10Ø	150mØ	100 †Δ#				8pⵔ	AN△	TO89	
94#	ME9021†	250m	300M§Δ	2.0m	$J	40	40 Ø	5.0	200m	.05uØ	1.1Ø	10mØ	30 †Δ				6pⵔ	PE†	TO106	A
95#	ME9022†	250m	300M§Δ	2.0m	$J	25	25 Ø	4.0	200m	.50uØ	1.0Ø	10mØ	30 †Δ				6pⵔ	PE†	TO106	A
96	SE5025	250m	300M§Δ	2.5m	♦J	30	30	3.0		.05u	10Ø	10mØ	35 †#				1pⵔ	DPE	R097e	
97	TIS64	250m	300M§Δ	2.0m	$J	30	12	3.0	30m	.10uØ	10Ø	4.0mØ	20 †Δ				2pⵔ	PL	X55	A
98	CS706†	250m	320MΔ			25	20 §	3.0		.05uØ	1.0Ø	10mØ	20 †#Δ				6pⵔ	D	R97a	
99#	2SC39A	250m	350M§	2.0m	$J	25	15 §	3.0	50m	.10uØ	6.0Ø	3.0m	120				3.0p	PL	TO18	
100	CS2369†	250m	350M§Δ	2.0m	$J	40	15	4.5	500m	.40uØ	10Ø	10mØ	3.5 Δ				4pⵔ	DPL	R97a	A
101	TIS84	250m	350M§Δ	2.0m	$J	40	30	4.0	50m	.05uØ	10Ø	4.0mØ	30 †Δ					PLØ†	X55	C
102	A496	250m	400M§	2.5m	♦J	40	30	4.0	25m		10	4.0m	27 †Δ				.2p†	PEØ	MM10	C
103#	ME9001†	250m	400M§Δ	2.0m	$J	40	40 Ø	4.5	200m	.30uØ	1.0Ø	10mØ	40 †Δ				4pⵔ	PE†	TO106	A
104#	ME9002†	250m	400M§Δ	2.0m	$J	30	30 Ø	4.5	200m	.30uØ	1.0Ø	10mØ	30 †Δ				4pⵔ	PE†	TO106	A
105	TIS63	250m	400M§Δ	2.0m	$J	30	12	3.0	30m	.10uØ	10Ø	4.0mØ	20 †Δ				2pⵔ	PL	X55	A
106▼#	AT520	250m	450MΔ§	2.5m	♦J	30	30	4.0	50m		10Ø	10mØ	20 Δ					PE	TO18	AØ
107#	BF176	250m	450M§	2.5m	♦J	40	40	4.0		50nØ	10Ø	10mØ	65 †#				1.2p	DPE	R97	
108#	BF310	250m	450M§ⵔ	2.5m	♦J	40	30	4.0	25m	60nØ	10	4.0mØ	28 †Δ				1.6pⵔ	PL	X76	A
109#	2SC39	250m	500M§	2.0m	$J	25	15 §	3.0	50m	.10uØ	6.0Ø	1.0m	50				2.3p	ME	TO18	
110	MD2369AF*	250m	500M§Δ	1.5m	§J	40	15	5.0	500m	.03uØ	1.0Ø	10mØ	40 †Δ#				4pⵔ	AN△	TO89	

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	MD2369BF*	250m	500M§△	1.5m	§J	40	15	5.0	500m	.03uØ	1.0Ø	10mØ	40 †△#				4pØ	ANΔ	TO89	
2	MD2369F*	250m	500M§△	1.5m	§J	40	15	5.0	500m	.03uØ	1.0Ø	10mØ	40 †△#				4pØ	ANΔ	TO89	
3	TIS62	250m	500M§△	2.0m	$J	30	12	3.0	30m	.10uØ	10Ø	4.0mØ	30 †△				2pØ	PLØ	X55	A
4	A497	250m	550M§	2.5m	♦J	40	25	4.0	25m		10	7.0m	115 †				300ft	PE†	MM10	C
5	2N4254	250m	600M§△	2.0m	$S	30	18	4.0	50m	.10uØ	10Ø	2.0mØ	50 †△				.7p$	†	TO92	B
6	2N4255	250m	600M§△	2.0m	$S	30	18	4.0	50m	.10uØ	10Ø	2.0mØ	30 †△				.7p$	†	TO92	B
7	2N4996	250m	600M§△	2.0m	$S	30	18	4.0	50m	.10uØ	10Ø	2.0mØ	50 †△				.7pØ		X55	A
8	2N4997	250m	600M§△	2.0m	$S	30	18	4.0	50m	.10uØ	10Ø	2.0mØ	30 †△				.7pØ		X55	A
9#	AT344	250m	600M	1.7m	§J	30	19	4.0	50m	.50uØ	10Ø	1.0mØ	40 †				2pØ	PE	TO104	G
10	GI3793	250m	600MØ§	2.5m	♦J	40	20	5.0		.50uØ	10Ø	10mØ	120 †Ø				10pØ		TO18	A
11	MD918AF*	250m	600M§△	1.5m	§J	30	15	5.0	50m	.01uØ	5.0Ø	1.0mØ	50 †△				3pØ	ANØ	TO89	
12	MD918BF*	250m	600M§△	1.5m	§J	30	15	5.0	50m	.01uØ	5.0Ø	1.0mØ	50 †△				3pØ	ANØ	TO89	
13	MD918F*	250m	600M§△	1.5m	§J	30	15	5.0	50m	.01uØ	5.0Ø	1.0mØ	50 †△				3pØ	ANØ	TO89	
14#	ME3001	250m	600M§△	2.0m	§J	30		3.0	100m	.05uØ	10Ø	8.0mØ	20 †△				2pØ	PE†	TO106	A
15#	ME3011	250m	600M§△	2.0m	§J	30		2.0		.50uØ	10Ø	8.0mØ	20 †△				3pØ	PL†	TO106	A
16	PET3001	250m	600M§	2.5m	♦J	30	12	4.0	100m	1.0u#Ø	10Ø	10mØ	20 †△				2pØ	DPE	R110	A
17	TIS18	250m	600M§△	2.0m	§J	25	13	3.0	30m	.50uØ	12Ø	10mØ	20 †#△				1.7pØ	PL	X20	
18#	ZTX320	250m	600M§	2.5m	♦A	30	15	3.0		200n	1.0Ø	3.0mØ	20 †				3.0pØ	PLØ	X59	F
19▼#	ZTX321	250m	600M§	2.5m	♦A	30	15	3.0		200n	1.0Ø	3.0mØ	20 †△				3.0pØ	PLØ	X59	F
20	CS3662	250m	700M§△	2.0m	§J	30	12	3.0	25m	.50uØ	10Ø	8.0mØ	20 †△				1.7pØ	DPLØ	TO106	A
21	CS3663	250m	700M§△	2.0m	§J	18	12	3.0	25m	.50u	10Ø	8.0mØ	20 †△				1.7pØ	DPLØ	TO106	A
22#	2SC40	250m	750M§	2.0m	§J	25	15 §	3.0	50m	.10uØ	6.0Ø	1.0m	50				2.3p	ME	TO18	
23	PMT1767	250mØ	750M†		§J	25	15	5.0	200m	.50uØ	3.0Ø	10mØ	5.0				3.5p	DPØ	ZA8	
24	PET3002	250m	800M§	2.5m	♦J	30	12	4.0	100m	1.0uØ†	10Ø	10mØ	60 †△				2pØ	DPE	R110	A
25	PET8101	250m	800M§	2.5m	♦J	18	12	4.0	100m	.05uØ	5.0Ø	5.0mØ	30 †△				2pØ	DPE	R110	A
26#	ME3002	250m	900M†△	2.0m	§J	30		3.0	100m	.05uØ	10Ø	8.0mØ	20 †△				2pØ	PE†	TO106	A
27	2N4251†	250m	1.3G§△	1.4m	§J	15	10	4.5	100m	1.0u§	5.0Ø	.10mØ	32 †△				2pØ		TO46	AØ
28	MT1061	250m	1.3G§	1.7m	§J	30	14 Ø	4.0	80m	.05uØ	5.0Ø	5.0mØ	45 †				.85p$	PEØ	TO72	A
29	MT1061A	250m	1.5G§	1.7m	§J	30	14 Ø	4.0	80m	.05uØ	5.0Ø	5.0mØ	75 †				.85p$	PEØ	TO72	A
30	MT1063	250m	1.5G§	1.7m	§J	30	14 Ø	4.0	80m	.05uØ	5.0Ø	5.0mØ	75 †				1.2p$	PE†	u49	A
31	A430	250m	1.6G§	1.4m	§J	20	10	2.5	50m	50nØ	5.0Ø	25mØ	25 †△				.8p†	PEØ	TO72	G
32#	BFW30	250m	1.6G§	1.4m	§J	20	10	2.5	50m	50nØ	5.0Ø	50 Ø	25 †△				800nt	PEØ	TO72	GØ
33▼	2N5761	250m	3.0G§△	2.0m	§S	20	15	3.0	30m	500nØ	10Ø	15mØ	30 †△				500f$Ø		X80a	Y
34#	V658	250m	3.0G§	1.4m	§J	20	12	3.0	50m	1.0uØ	5.0Ø	20mØ	100 †				1.2p	PEØ	X89	R
35#	BF240	255m	400M§	2.6m	♦J	40	40	4.0	25m		10Ø	1.0mØ	66 †△				.95p	PEØ	X76	C
36#	BF241	255m	400M§	2.6m	♦J	40	40	4.0	25m		10Ø	1.0mØ	35 †△				.95p	PEØ	X76	C
37#	BFY85*	260m				45	45	5.0	100m	.01u			50 †△					PE	L2t	
38#	BFY86*	260m				45	45	5.0	100m	.01u			50 †△					PE	L2t	
39	BCY58	260m	50.M§	2.0m		32	32	5.0	100m	10nØ	.50Ø	.01mØ	100					PE	TO18	
40	BCY59	260m	50.M§	2.0m		45	45	5.0	100m	10nØ	.50Ø	.01mØ	100					PE	TO18	
41#	BFY80	260m	50MΔ§	2.0m	§J	100	90 §	3.0	50m	.10uØ	10Ø	2.0mØ	30 †△					PL	TO18	
42	BSY62	260m*	200M§△	2.0m	§J	25	15	5.0	200m	.50uØ	1.0Ø	10mØ	40 †				5.0p	PEΔ	TO18	
43	FT107A	260m	200M§	2.0m	§J	60	60	8.0	50m	2.0nØ	10Ø	1.0mØ	335	24u	8.5k	7.0	2.5p$	DPEØ	TO18	AØ
44	FT107B	260m	260M§	2.0m	§J	45	45	8.0	50m	2.0nØ	10Ø	1.0mØ	1.0k	74u	28k	23	2.5p$	DPEØ	TO18	AØ
45	FT107C	260m	280M§	2.0m	§J	30	30	8.0	50m	2.0nØ	10Ø	1.0mØ	1.6k	120u	39k	33	2.5p$	DPEØ	TO18	AØ
46	A473	260m	550M§	1.5m	§J	40	25	4.0	25m	100nØ	10	7.0m	90 †				2.1p	PE	TO72	J
47#	BF168	260m*	550M§	2.0m	§J	50	30	4.0	25m	.30u†	20	7.0m	100 †				1.3p	PE	TO18	
48	BF173	260m	550M§	1.5m	§J	40	25	4.0	25m		10Ø	7.0mØ	88					PL	TO72	
49#	BF232	270m	600M§	1.5m	§J		25	4.0	30m									PE	TO72	C
50#	BSX80†	275m	300M§△	2.0m	§A						1.0Ø	10mØ	30 △				6.0p	NPE	MM12	
51	TP4274†	280m	400M§△				12				1.0Ø	10mØ	35 †				4p$	PE	X93	A
52	TP4275†	280m	400M§△				15				1.0Ø	10mØ	35 †				4p$	PE	X93	A
53#	2N1990W	300m		3.0m	♦J	100	75	5.0		1.0u#	.50Ø	2.0mØ	25 †△					PE	R110	A
54#	2S741A	300m				30	30	3.0	50m	100u	5.0Ø	3.0mØ	5.0 △					PL	TO18	
55#	2S742A	300m				75	75	3.0	50m	100u	5.0Ø	3.0mØ	5.0 △					PL	TO18	
56#	2S743A	300m				115	115	3.0	50m	100u	5.0Ø	3.0mØ	5.0 △					PL	TO18	
57#	2S744A	300m				30	30	3.0	50m	100u	5.0Ø	3.0mØ	20 △					PL	TO18	
58#	2S745A	300m				75	75	3.0	50m	100u	5.0Ø	3.0mØ	20 △					PL	TO18	
59#	2S746A	300m				115	115	3.0	50m	100u	5.0Ø	3.0mØ	20 △					PL	TO18	
60#	2SC538	300m		2.0m	§J	25	25	5.0	50m	.01uØ	5.0	2.0m	250					PE	TO18	AØ
61#	2SC538A	300m		2.0m	§J	45	45	5.0	50m	.01uØ	5.0	2.0m	250					PE	TO18	AØ
62#	2SC539	300m		2.0m	§J	25	25	5.0	50m	.01uØ	5.0	2.0m	250					PE	TO18	AØ
63#	2SC689H†	300m		2.0m	§J	40	15	5.0		.25uØ	1.0Ø	10mØ	40 †△				3.5p		TO18	A
64#	2SC913†	300m		8.3m	§J	40	35	5.0	300m	.10uØ	1.0Ø	30mØ	45 †△				5pØ	PE	TO18	
65	A115	300m		2.0m	§J	20	20	4.0	30m	.10u	5.0Ø	.10mØ	60 †					PL	TO18	A
66	CI3414	300m		2.4m	J	25	25	5.0	500m	100n	4.5Ø	2.0mØ	75 △					DPL†	R127a	D
67	CI3415	300m		2.4m	J	25	25	5.0	500m	100n	4.5Ø	2.0mØ	180 △					DPL†	R127a	D
68	CI3416	300m		2.4m	J	50	50	5.0	500m	100nØ	4.5Ø	2.0mØ	75 △					DPL†	R127a	D
69	CI3417	300m		2.4m	J	50	50	5.0	500m	100nØ	4.5Ø	2.0mØ	180 △					DPL†	R127a	D
70	CS3414	300m		2.4m	§J	25	25	5.0	500m	.10u	4.5Ø	2.0mØ	75 △					DPL	R97a	A
71	CS3415	300m		2.4m	§J	25	25	5.0	500m	.10u	4.5Ø	2.0mØ	180 △					DPL	R97a	A
72	CS3416	300m		2.4m	§J	50	50	5.0	500m	.10uØ	4.5Ø	2.0mØ	75 △					DPL	R97a	A
73	CS3417	300m		2.4m	§J	50	50	5.0	500m	.10uØ	4.5Ø	2.0mØ	180 △					DPL	R97a	A
74	GI2711	300m		3.0m	♦J	18	18	5.0		.50u	4.5Ø	2.0m	120 Ø				12pØ	PE	R97d	
75	GI2712	300m		3.0m	♦J	18	18	5.0		.50u	4.5Ø	2.0m	300 Ø				12pØ	PE	R97d	
76	GI2713	300m		3.0m	♦J	18	18	5.0		.50u	4.5Ø	2.0m	120 Ø					PE	R97d	
77	GI2714	300m		3.0m	♦J	18	18	5.0		.50u	4.5Ø	2.0m	300 Ø					PE	R97d	
78	GI2715	300m		3.0m	♦J	18	18	5.0		.50u	4.5Ø	2.0m	120 Ø				5pØ	PE	R97d	
79	GI2716	300m		3.0m	♦J	18	18	5.0		.50u	4.5Ø	2.0m	300 Ø				5pØ	PE	R97d	
80	GI3707	300m		3.0m	♦J	30	30			.10uØ	5.0Ø	.10mØ	100 △					Ø	TO18	A
81	GI3708	300m		3.0m	♦J	30	30			.10uØ	5.0Ø	1.0mØ	45 △						TO18	A
82	GI3709	300m		3.0m	♦J	30	30			.10uØ	5.0Ø	1.0mØ	45 △						TO18	A
83	GI3710	300m		3.0m	♦J	30	30			.10uØ	5.0Ø	1.0mØ	90 △						TO18	A
84	GI3711	300m		3.0m	♦J	30	30			.10uØ	5.0Ø	1.0mØ	180 △						TO18	A
85	MD8001*	300m		1.7m	§J		40	4.0	30m	.05uØ	10Ø	1.0mØ	100 †△				3.0p	EA*	L2v	
86	MD8002*	300m		1.7m	§J		50	4.0	30m	.05uØ	10Ø	1.0mØ	100 †△				3.0p	EA*	L2v	
87	MD8003*	300m		1.7m	§J		60	4.0	30m	.05uØ	10Ø	1.0mØ	100 †△				3.0p	EA*	L2v	
88#	ZTX341	300m		3.0m	♦A	100	100	5.0	100m	500nØ*	1.0Ø	2.0mØ	30 △†					PLØ	X59	F
89#	ZTX342	300m		3.0m	♦A	120	120	5.0	100m	500nØ*	1.0Ø	2.0mØ	30 △†					PLØ	X59	F
90▼#	PBC182	300m	150 §△	3.0m	#J	60	50	5.0	200m	10u	5.0Ø	2.0mØ	100 △†				5.0p	PE	TO98	B
91▼#	PBC183	300m	150 §△	3.0m	#J	45	30	5.0	200m	10u	5.0Ø	2.0mØ	100 △†				5.0p	PE	TO98	B
92▼#	PBC184	300m	150 §△	3.0m	#J	45	30	5.0	200m	10u	5.0Ø	2.0mØ	250 △†				5.0p	PEØ	TO98	B
93	2N4879*	300mØ	15M§△	1.7m	§S	55	55	7.0	10m	.1nØ	5.0Ø	1.0mØ	175 †△				.8p$	Ø*	L2p	
94	2N4880*	300mØ	15M§△	1.7m	§S	45	45	7.0	10m	.1nØ	5.0Ø	1.0mØ	100 †△				.8p$	Ø*	L2p	
95	2N2432Ø	300m	20M§△	2.0m	§S	30	30	15	100m	.01uØ	5.0Ø	1.0mØ	50 †△				12pØ	Δ	TO18	AØ
96	2N2432AØ	300m	20M§△	2.0m	§S	45	45	18	100m	.01uØ	5.0Ø	1.0mØ	50 †△				12p$Ø	Δ	TO18	AØ
97	2N4138	300m	20M§△	2.0m	§S	30	30	15	100m	.01uØ	5.0Ø	1.0mØ	50 †△				12pØ	Ø	TO46	AØ
98	2N4878*	300mØ	20M§△	1.7m	§S	60	60	7.0	10m	.1nØ	5.0Ø	1.0mØ	225 †△				.8p$	Ø*	L2p	
99#	BFV89Ø	300m	20M§△	2.0m	§S	30	30	15	100m	.01uØ	5.0Ø	1.0mØ	50 †△				12pØ	PE	u26a	B
100#	BFV89AØ	300m	20M§△	2.0m	§S	45	45	18	100m	.01uØ	5.0Ø	1.0mØ	50 †#				12pØ	PE	u26a	B
101	2N754	300m	30M§△	3.0m	§S	60	60 §	3.0	50m	1.0u	10Ø	5.0mØ	20 △				10pØ		TO18	AØ
102	2N755	300m	30M§△	3.0m	§S	100	80 §	3.0	50m	1.0u	10Ø	5.0mØ	20 △				10pØ		TO18	AØ
103	2N839	300m	30M§△	3.0m	§J	45	45 §	2.0	50m	1.0u	5.0Ø	1.0mØ	20 △	1.2uØb	80		15pØ		TO18	AØ
104	2N840	300m	30M§△	3.0m	§J	45	45 §	2.0	50m	1.0u	5.0Ø	1.0mØ	40 △	1.2uØb	80		15pØ		TO18	AØ
105	2N842	300m	30M§	2.0m	§J	45	45 §	2.0	50m	1.0u	5.0Ø	1.0mØ	20 △	350nb	40	2.0	6.0p	MEΔ	TO18	AØ
106	2N929	300m	30M§△	2.0m	§J	45	45	5.0	30m	10u	5.0Ø	1.0mØ	60 △	1.0uØb	32 Ø	6.0 Ø	8.0pØ	PLØ	TO18	AØ
107	2N930	300m	30M§△	2.0m	§J	45	45	5.0	30m	10u	5.0Ø	1.0mØ	150 △	1.0uØb	32 Ø	6.0 Ø	8.0pØ	PLØ	TO18	AØ
108	2N1390	300m	30.M	2.0m	§J	20	20	2.0	50m	.80uØ	5.0Ø	10mØ	15 †△				7.0p	PD	TO5	A
109	2N2387	300m	30M§△	2.0m	§J	45	45	5.0	30m	10n	5.0Ø	1.0m	60 △	1.0uØb	32 Ø	6.0 Ø	8.0pØ	PLØ	u25	
110	2N2388	300m	30M§△	2.0m	§J	45	45	5.0	30m	10n	5.0Ø	1.0m	150 △	1.0uØb	32 Ø	6.0 Ø	8.0pØ	PLØ	u25	

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	2S501	300m	30M§△	2.0m	§J	25	25	5.0	30m	10n	5.0Ø	10uØ	40 †△				8.0pⓏ	PLØ	TO18	Ø
2#	2S502	300m	30M§△	2.0m	§J	25	25	5.0	30m	10n	5.0Ø	10uØ	100 †△				8.0pⓏ	PLØ	TO18	Ø
3#	2S503†	300m	30M§△	2.0m	§J	25	25	5.0	30m	10n	5.0Ø	10uØ	180 †△				8.0pⓏ	PLØ	TO18	Ø
4	3N74Ø	300m	30M§△	2.0m	§S	50		18	20m	.01uØ							8pⓏ	△	TO72	GCØ
5	JAN3N74Ø	300m	30M§△	1.7m	§J	50		20	20m	10nØ							8.0pⓏ		TO72	GCØ
6	3N75Ø	300m	30M§△	2.0m	§S	50		18	20m	.01u							8pⓏ	△	TO72	GCØ
7	JAN3N75Ø	300m	30M§△	1.7m	§J	50		20	20m	10nØ							8.0pⓏ		TO72	GCØ
8	3N76Ø	300m	30M§△	2.0m	§S	50		18	20m	.01u							8pⓏ	△	TO72	GCØ
9	JAN3N76Ø	300m	30M§△	1.7m	§J	50		20	20m	10nØ							8.0pⓏ		TO72	GCØ
10	3N77Ø	300m	30M§△	2.0m	§S	40		12	20m	.01uØ							8pⓏ	△	TO72	GCØ
11	3N78Ø	300m	30M§△	2.0m	§S	40		12	20m	.01uØ							8pⓏ	△	TO72	GCØ
12	3N79Ø	300m	30M§△	2.0m	§S	40		12	20m	.02uØ							10pⓏ	△	TO72	GCØ
13#	BFV85D	300m	30M§△	500u	§J	45	45	5.0	30m	10n	5.0Ø	10uØ	60 △	1.0uⓏb	32 Ⓩ	6.0 Ⓩ	8.0pⓏ	PLØ	u26a	B
14#	BFV85E	300m	30M§△	500u	§J	45	45	5.0	30m	10n	5.0Ø	10uØ	150 △	1.0uⓏb	32 Ⓩ	6.0 Ⓩ	8.0pⓏ	PLØ	u26a	B
15#	ZT930	300m	30M§△			45	45	5.0	30m	.01u			600 †Ⓩ						TO18	
16	2N2639*	300m	31M§△	2.0m	§S	45	45	5.0	30m	10n	5.0Ø	1.0mØ	65 △	1.0uⓏb	32 Ⓩ	6.0 Ⓩ	8.0pⓏ	Ø	L2t	
17	2N2640*	300m	31M§△	2.0m	§S	45	45	5.0	30m	10n	5.0Ø	1.0mØ	65 △	1.0uⓏb	32 Ⓩ	6.0 Ⓩ	8.0pⓏ	Ø	L2t	
18	2N2641*	300m	31M§△	2.0m	§S	45	45	5.0	30m	10n	5.0Ø	1.0mØ	65 △	1.0uⓏb	32 Ⓩ	6.0 Ⓩ	8.0pⓏ	Ø	L2t	
19	2N2642*	300m	31M§△	2.0m	§S	45	45	5.0	30m	10n	5.0Ø	1.0mØ	130 △	1.0uⓏb	32 Ⓩ	6.0 Ⓩ	8.0pⓏ	Ø	L2t	
20	2N2643*	300m	31M§△	2.0m	§S	45	45	5.0	30m	10n	5.0Ø	1.0mØ	130 △	1.0uⓏb	32 Ⓩ	6.0 Ⓩ	8.0pⓏ	Ø	L2t	
21	2N2644*	300m	31M§△	2.0m	§S	45	45	5.0	30m	10n	5.0Ø	1.0mØ	130 △	1.0uⓏb	32 Ⓩ	6.0 Ⓩ	8.0pⓏ	Ø	L2t	
22	JAN2N2639*	300m	32M§△	2.0m	§S	45	45	5.0	30m	10n	5.0Ø	1.0mØ	65 △	1.0uⓏb	32 Ⓩ	6.0 Ⓩ	8.0pⓏ	Ø	L2b	
23	JAN2N2642*	300m	32M§△	2.0m	§S	45	45	5.0	30m	10n	5.0Ø	1.0mØ	130 △	1.0uⓏb	32 Ⓩ	6.0 Ⓩ	8.0pⓏ	Ø	L2b	
24	2N841	300m	40M§△	3.0m	§S	45	45 §	2.0	50m	1.0u	5.0Ø	1.0mØ	80 △	1.2uⓏb	80		15pⓏ		TO18	AØ
25	2N843	300m	40M§	2.0m	§S	45	45 §	2.0	50m	1.0u	5.0Ø	10mØ	40 △	350nb	40	2.0	6.0p	ME△	TO18	AØ
26	2N1389	300m	40.M	2.0m	§J	50	50 Ø	1.5	50m	.50uØ							4.0p	PDØ	TO5	A
27	JAN2N2432	300m	40M§△	1.7m	§S	30	30		100m	10nØ	5.0Ø	1.0mØ	80 †△				12pⓏ	△	TO18	AⓏ
28	JAN2N2432A	300m	40M§△	1.7m	§S	45	45		100m	10nØ	5.0Ø	1.0mØ	80 †△				12pⓏ	△	TO18	AØ
29	2N3566	300m	40M§△	3.0m	♦S	40	30	5.0	200m	.05uØ	10Ø	10mØ	150 †#△				25pⓏ	PE	R97	A
30	2N5135	300m	40M§△	2.9m	♦J	30	25	4.0	200m	.30uØ	10Ø	10mØ	50 †#△				25p$		TO105	A
31	2N5137	300m	40M§△	2.9m	♦J	30	20	3.0	500m	.10uØ	1.0Ø	150mØ	20 †#△				35p$		TO106	A
32	BC115	300m	40.M§	3.0m	♦J	40	30	5.0		.10uØ	10Ø	10mØ	200 †#				12p	DPL	R97	
33#	BC117	300m	40M§△	3.0m	♦J	120	120	5.0		.10uØ	10Ø	30mØ	30 †△				6.0p	DPL	R97	
34	BC125	300m	40M§△	3.0m	♦J	50	30	5.0		.05uØ	10Ø	1.0mØ	20 †△				12p	DPE	R97	
35#	BC145	300m	40M§△	3.0m	♦J	120	120	5.0		.10uØ	30Ø	5.0mØ	30 †△				6.0p	PE	R97	
36#	BSY89Ø	300m	40M§△	2.0m	§J	25	18	7.0	100m	.01uØ	5.0Ø	1.0mØ	150 †△				15pⓏ	PE	TO18	AØ
37#	FT023	300m	40M§△	2.5m	§S	50	30	6.0	300m	100u	15Ø	6.0mØ	20 △	50u	650		40p		TO46	
38#	FT024	300m	40M§△	2.5m	§S	50	30	6.0	300m	100u	15Ø	6.0mØ	45 △	50u	650		40p		TO46	
39#	HT400	300m	40M△	2.0m	§A	20	20	5.0	50m	200nØ	1.0Ø	10mØ	14 †△	b	30		20pⓏ	PL	TO18	
40#	HT401	300m	40M△	2.0m	§A	20	20	5.0	50m	200nØ	1.0Ø	10mØ	35 †△	b	30		20pⓏ	PL	TO18	
41	SE6001	300m	40.M§	3.0m	♦J	40	30	5.0		.50uØ	10Ø	10mØ	50 †#△				25pⓏ	PL	TO105	
42	SE6002	300m	40.M§	3.0m	♦J	40	30	5.0		.50uØ	10Ø	10mØ	150 †#△				25pⓏ	PL	TO105	
43	2N2693†	300m	42M§△	2.0m	§S	45	30	10	50m	.01uØ	1.0Ø	.01mØ	40 †△				5pⓏ		TO18	AØ
44	2N2694†	300m	42M§△	2.0m	§S	45	20	10	50m	.01uØ	1.0Ø	.01mØ	20 †△				5pⓏ		TO18	AØ
45	JAN2N929	300m	45M§△	2.0m	§J	60	45	6.0	30m	10nØ	5.0Ø	1.0mØ	60 △	1.0uⓏb	32 Ⓩ	6.0 Ⓩ	8.0pⓏ	Ø	TO18	AØ
46#	BFX92	300m	45M§	2.0m	§J	50	45	6.0	30m	10nØ	5.0Ø	1.0mØ	60 △	1.0uⓏb	32 Ⓩ	6.0 Ⓩ	5.0p	DPLØ	TO18	AØ
47#	BFX93	300m	45M§	2.0m	§J	50	45	6.0	30m	10nØ	5.0Ø	1.0mØ	150 △	1.0uⓏb	32 Ⓩ	6.0 Ⓩ	5.0p	DPLØ	TO18	AØ
48	2N844	300m	50M§	2.0m	§J	60	60 §	3.0	50m	1.0u	10Ø	1.0mØ	80	350nb	40	2.0	6.0pⓏ	ME△	TO18	AØ
49	2N845	300m	50M§	2.0m	§J	100	80 §	3.0	50m	1.0u	10Ø	1.0mØ	80	350nb	40	2.0	6.0pⓏ	ME△	TO18	AØ
50	2N1387†	300m	50.M	2.0m	§J	30	30 Ø	3.0	50m	.10uØ	5.0Ø	10mØ	30 †				4.0p	PD	TO5	A
51	2N2356AØ	300m	50M§△	1.7m	▼S	25	7.0	7.0		.01u	10Ø	50mØ	2.5 △				20pⓏ		L6	
52	2N2480*	300m	50M§△	1.7m	§J	75	40	5.0	500m	.05uØ	5.0Ø	1.0mØ	30 †△				20pⓏ	*Ø	L2t	
53	2N2480A*	300m	50M§△	1.7m	§J	80	40	5.0	500m	.02uØ	5.0Ø	1.0mØ	50 △	16uⓏ	5.0kⓏ		18pⓏ	*Ø	L2t	
54#	2SC1010	300m	50M§△	2.4m	§J	60	40	8.0	50m	100nØ	1.0Ø	1.0mØ	100 †△				5.0p	PE	TO18	AØ
55	D12X043†	300m	50M§△	1.7m	§J	80	50	8.0		.10uØ	10Ø	150mØ	40 †△				20pⓏ	PE	TO5	
56	D12X047	300m	50M§△	1.7m	§J	45	25	5.0		.10uØ	10Ø	150mØ	20 †△				20pⓏ	PE	TO5	
57	EN697	300m	50M§△	3.0m	♦J	60	30	5.0		1.0uØ	5.0Ø	1.0mØ	25 △	500nⓏb	34 Ⓩ	5.0 Ⓩ	35pⓏ	DPL	TO105	AØ
58▼	MPSA10	300m	50M§△	2.7m	#J		40	4.0	100m	100n	10Ø	5.0mØ	40 †△*				4.0pⓏ	AN	TO92	A
59	TRS3011	300m	50M§△	2.0m	§A	300	300 §	6.0		2.0uØ	4.0Ø	50mØ	65 †#				14p		TO46	
60	TRS3012	300m	50M§△	2.0m	§A	300	300 §	6.0		2.0uØ	4.0Ø	50mØ	65 †#				14p		TO18	
61	TRS3501	300m	50M§△	2.0m	§A	350	350 §	6.0		2.0uØ	4.0Ø	50mØ	60 †#				14p		TO46	
62	TRS3502	300m	50M§△	2.0m	§A	350	350 §	6.0		2.0uØ	4.0Ø	50mØ	60 †#				14p		TO18	
63	TRS4001	300m	50M§△	2.0m	§A	400	400 §	6.0		2.0uØ	4.0Ø	50mØ	65 †#				14p		TO46	
64	TRS4002	300m	50M§△	2.0m	§A	400	400 §	6.0		2.0uØ	4.0Ø	50mØ	65 †#				14p		TO18	
65	TRS4501	300m	50M§△	2.0m	§A	450	450 §	6.0		2.0uØ	4.0Ø	50mØ	65 †#				14p		TO46	
66	TRS4502	300m	50M§△	2.0m	§A	450	450 §	6.0		2.0uØ	4.0Ø	50mØ	65 †#				14p		TO18	
67	TRS5011	300m	50M§△	2.0m	§A	500	500 §	6.0		2.0uØ	5.0Ø	25mØ	65 †#				14p		TO46	
68	TRS5012	300m	50M§△	2.0m	§A	500	500 §	6.0		2.0uØ	5.0Ø	25mØ	65 †#				14p		TO18	
69	TRS5501	300m	50M§△	2.0m	§A	550	550 §	6.0		10uØ	5.0Ø	25mØ	60 †#				14p		TO46	
70	TRS5502	300m	50M§△	2.0m	§A	550	550 §	6.0		10uØ	5.0Ø	25mØ	60 †#				14p		TO18	
71	TRS6011	300m	50M§△	2.0m	§A	600	600 §	6.0		10uØ	5.0Ø	25mØ	65 †#				14p		TO46	
72	TRS6012	300m	50M§△	2.0m	§A	600	600 §	6.0		10uØ	5.0Ø	25mØ	65 †#				14p		TO18	
73	2N2910*	300m	55M§△	1.7m	§J	45	25	7.0		10nØ	5.0Ø	1.0mØ	50 △	1.0uⓏb	32 Ⓩ	8.0 Ⓩ	12pⓏ		L2b	
74	2N780	300m	60M§△	2.0m	§S	45	45	5.0	50m	.01uØ	5.0Ø	.50mØ	35 †△		75kⓏ		4pⓏ	Ø	TO18	AØ
75	2N1386†	300m	60.M	2.0m	§J	25	25 Ø	3.0	50m	.10uØ	5.0Ø	10mØ	45 †				4.0p	PD	TO5	A
76	2N2586	300m	60M§△	2.0m	§S	60	45	6.0	30m	2.0n	5.0	1.0u	80 †△	45u	11		6.0p	PLØ	TO18	AØ
77	2N2652*	300m	60M§△	1.7m	§J	100	60	7.0	500m	10nØ	5.0Ø	1.0mØ	50 △	50uⓏ	10k		15pⓏ	Ø	L2t	
78	2N2652A*	300m	60M§△	1.7m	§J	100	60	7.0	500m	2.0nØ	5.0Ø	1.0mØ	50 △	50uⓏ	10kⓏ		15pⓏ	Ø	L2t	
79	2N2913*	300m	60M§△	2.8m	§J	45	45	6.0	30m	10n	5.0Ø	10nØ	60 †△	1.0uⓏb	32 Ⓩ		6.0pⓏ	Ø	L2t	
80	2N2914*	300m	60M§△	2.8m	§J	45	45	6.0	30m	10n	5.0Ø	10nØ	150 †△	1.0uⓏb	32 Ⓩ		6.0pⓏ	Ø	L2t	
81	2N2915*	300m	60M§△	1.7m	§J	45	45	6.0	30m	10n	5.0Ø	10uØ	60 †△	1.0ub	32 Ⓩ		6.0pⓏ	Ø	L2t	
82	2N2915A*	300m	60M§△	1.7m	§J	45	45	6.0	30m	10n	5.0Ø	1.0mØ	150 †△	100nⓏb	37 Ⓩ		6.0pⓏ	*	L2t	
83	2N2916*	300m	60M§△	2.8m	§J	45	45	6.0	30m	10n	5.0Ø	10uØ	150 †△	1.0uⓏb	32 Ⓩ		6.0pⓏ	*	L2t	
84	2N2916A*	300m	60M§△	1.7m	§J	45	45	6.0	30m	10n	5.0Ø	1.0mØ	300 †△	100nⓏb	37 Ⓩ		6.0pⓏ	*	L2t	
85	2N2917*	300m	60M§△	2.8m	§J	45	45	6.0	30m	10n	5.0Ø	10uØ	60 †△	1.0uⓏb	32 Ⓩ		6.0pⓏ	*	L2t	
86	2N2918*	300m	60M§△	2.8m	§J	45	45	6.0	30m	10n	5.0Ø	10uØ	150 †△	1.0uⓏb	32 Ⓩ		6.0pⓏ	*	L2t	
87	2N2919*	300m	60M§△	2.8m	§J	60	60	6.0	30m	2.0nØ	5.0Ø	10uØ	60 †△	1.0uⓏb	32 Ⓩ		6.0pⓏ	*	L2t	
88	JAN2N2919*	300m	60M§△	1.7m	§A	70	60 *	6.0	30m	1.0u	5.0Ø	10uØ	60 †△	60uⓏ	30kⓏ	10 Ⓩ	5.0pⓏ	Ø	L2v	
89	2N2919A*	300m	60M§△	1.7m	§J	60	60	6.0	30m	2.0nØ	5.0Ø	1.0mØ	150 †△	100nⓏb	37 Ⓩ		6.0pⓏ	*	L2t	
90	2N2920*	300m	60M§△	2.8m	§J	60	60	6.0	30m	2.0nØ	5.0Ø	10uØ	150 †△	1.0uⓏb	32 Ⓩ		6.0pⓏ	*	L2t	
91	JAN2N2920*	300m	60M§△	1.7m	§A	70	60 *	6.0	30m	1.0u	5.0Ø	10uØ	175 †△	60uⓏ	30kⓏ	10 Ⓩ	5.0pⓏ	Ø	L2v	
92	2N2920A*	300m	60M§△	1.7m	§J	60	60	6.0	30m	2.0nØ	5.0Ø	1.0mØ	300 †△	100nⓏb	37 Ⓩ		6.0pⓏ	*	L2t	
93	2N3567	300m	60M§△	3.0m	♦J	80	40	5.0	500m	50uØ	1.0Ø	150mØ	40 †#△				20p$		TO105	A
94	2N3568	300m	60M§△	3.0m	♦J	80	60	5.0	500m	50uØ	1.0Ø	150mØ	100 †△				20p$		TO105	A
95	2N3569	300m	60M§△	3.0m	♦J	80	40	5.0	500m	50uØ	1.0Ø	150mØ	40 †#△				20p$		TO105	A
96	2N3680*	300m	60M§△	2.0m	§S	60	50	6.0	30m	.01uØ	5.0Ø	1.0mØ	300 △	45uⓏ	24kⓏ	10 Ⓩ	6pⓏ	Ø	L2t	
97	2N3907*	300m	60M§△	2.0m	§S	60	45	6.0	30m	10nØ	5.0Ø	1.0mØ	120 △	1.0uⓏb	32 Ⓩ		6.0pⓏ	*	L2t	
98	2N3908*	300m	60M§△	2.0m	§S	60	60	6.0	30m	2.0nØ	5.0Ø	1.0mØ	200 △	1.0uⓏb	32 Ⓩ		6.0pⓏ	*	L2t	
99	A311	300m	60M§△	2.0m	§J	80		3.0		.50uØ	10Ø	10mØ	20 †△				4pⓏ	PL	TO5	A
100♦	A321	300m	60M§	2.0m		30	30	5.0	100m	100n	5.0Ø	2.0mØ	280 †	18u	4.5k	1.5	3.5p	PEØ	TO18	A
101♦	A322	300m	60M§	2.0m		30	30	5.0	100m	100n	5.0Ø	2.0mØ	400	30u	8.5k	2.0	3.5p	PEØ	TO18	A
102#	BC186	300m	60.M§	2.0m	§J	40	25	5.0	100m		5.0Ø	2.0mØ	40 †△				5pt	PE	TO18	A
103#	BFV85F	300m	60M§△	500u	§J	60	60	6.0	50m	.01uØ	5.0Ø	1.0mØ	80 △	30uⓏ	13 Ⓩ	8 Ⓩ	6pⓏ	PLØ	u26a	B
104#	BFV85G	300m	60M§△	500u	§J	60	60	6.0	50m	.01uØ	5.0Ø	1.0mØ	150 △	40uⓏ	24 Ⓩ	8 Ⓩ	6pⓏ	PLØ	u26a	B
105#	BFY10	300m	60M§△	2.0m	§J	45	45	5.0	50m	2.0uØ	5.0	5.0m	20 △				3pⓏ	ME	TO5	
106#	BFY11	300m	60M§△	2.0m	§J	45	45	5.0	50m	2.0uØ	5.0	5.0m	35 △				3pⓏ	ME	TO5	
107#	BSX21	300m	60M§△	2.0m	§J	120	80	5.0	50m	40u	3.0Ø	4.0mØ	40 †				3.6p	DM	TO18	Ø
108#	BSY10	300m	60MØ△	2.0m	§J	45		5.0	50m		5.0	10m	45 †△					ME	TO5	
109#	C424	300m	60M§△	3.0m	♦J	40	30	6.0		.20uØ	10Ø	50mØ	50 †△				25pⓏ	PL	R97	
110	EN1613	300m	60M§△	3.0m	♦J	75	40 *Ⓩ	7.0	30m	50nØ	5.0Ø	1.0mØ	25 △	500nⓏb	34 Ⓩ	5.0 Ⓩ	25pⓏ	DPL	TO105	A

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O D E
1	2N2692	300m	66.M§	2.0m	§J	45	30	10	50m	.01uØ	1.0Ø	.10m	90 †Δ				5pØ	PEΔØ	TO18		AØ
2	JAN2N702†	300m	70M§Δ	1.7m	§S	40	25	5.0	30m	100nØ	5.0Ø	10mØ	20 †Δ#	500nØb	34 Ø	5.0 Ø	6.0pØ	DPL	TO18		AØ
3	JAN2N703†	300m	70M§Δ	1.7m	§S	40	25	5.0	30m	100nØ	5.0Ø	10mØ	20 †Δ#	500nØb	34 Ø	5.0 Ø	6.0pØ	DPL	TO18		AØ
4#	2S101†	300m	70M§Δ	2.0m	§J	25	25	5.0	50m	.50uØ	5.0Ø	10mØ	20 †Δ				6pØ	DM	TO18		
5	EN1711	300m	70M§Δ	3.0m	♦J	75	40 *Ø	7.0		50nØ	5.0Ø	1.0mØ	50 Δ	500nØb	34 Ø	5.0 Ø	25pØ	DPL	TO105	A	
6#	FT025	300m	70M§Δ	2.5m	§S	50	30	6.0	100m	100u	15Ø	6.0mØ	20 Δ	70u	400		20p		TO46		
7#	FT026	300m	70M§Δ	2.5m	§S	50	30	6.0	100m	100u	15Ø	6.0mØ	45 Δ	70u	700		22p		TO46		
8#	ZT202	300m	70M§Δ	4.0m	#J	30	20	5.0	50m	1.0u	6.0Ø	1.0mØ	30	2.5u	1.3k	1.1	8.0pØ		TO5		Ø
9#	ZT203	300m	70M§Δ	4.0m	#J	30	20	5.0	50m	1.0u	6.0Ø	1.0mØ	50	2.5u	1.6k	1.1	8.0pØ		TO5		Ø
10#	ZT204	300m	70M§Δ	4.0m	#J	30	20	5.0	50m	1.0u	6.0Ø	1.0mØ	100	2.5u	1.9k	1.1	8.0pØ		TO5		Ø
11#	ZT402	300m	70M§Δ	4.0m	#J	30	20	5.0	50m	1.0u	6.0Ø	1.0mØ	30	2.5u	1.3k	1.1	8.0pØ		TO5		Ø
12#	ZT403	300m	70M§Δ	4.0m	#J	30	20	5.0	50m	1.0u	6.0Ø	1.0mØ	50	2.5u	1.6k	1.1	8.0pØ		TO18		Ø
13#	ZT404	300m	70M§Δ	4.0m	#J	30	20	5.0	50m	1.0u	6.0Ø	1.0mØ	100	2.5u	1.9k	1.1	8.0pØ		TO18		Ø
14	2N1388	300m	75.M	2.0m	§J	45	45 Ø	1.5	50m	.50uØ	5.0Ø	10mØ	15 †Δ				4.0p	PDØ	TO5		
15	2N2720*	300m	80M§Δ	1.7m	§S	80	60	6.0	40m	10nØ	5.0Ø	1.0mØ	30 Δ	1.0uØb	32 Ø	5.0 Ø	6.0pØ	*	L2t		
16	2N2721*	300m	80M§Δ	1.7m	§S	80	60	6.0	40m	10nØ	5.0Ø	1.0mØ	30 Δ	1.0uØb	32 Ø	5.0 Ø	6.0pØ	*	L2t		
17#	2SC732	300m	80.M§	3.0m	♦J	35	30	5.0	100m	.10uØ	6.0Ø	2.0mØ	1.2kt Ø				10pØ	PE	RO67a	B	
18#	2SC733	300m	80M§Δ	3.0m	♦J	35	30	5.0	100m	.10uØ	6.0Ø	2.0mØ	70 †Δ*				7.0p	PE	RO67a	B	
19	A301	300m	80M§Δ	2.0m	§J	40		4.0	40m	.50uØ	10Ø	3.0mØ	200 †Δ				3pØ	PL	TO18		
20	A310	300m	80M§Δ	2.0m	§J	135		3.0		.50uØ	10Ø	10mØ	20 †Δ				4pØ	PL	TO5	A	
21	BC136	300m	80.M§	3.0m	♦J	60	40	5.0		.05uØ	10Ø	10mØ	85	35u	400	1.0	12p	DPE	R97		
22#	BFW57	300m	80M§Δ	3.0m	♦J	80	60	6.0	500m	.50u	10Ø	10mØ	110	20u	400	1.0	7.0p	PE	MM10	A	
23#	BFW58	300m	80M§Δ	3.0m	♦J	80	60	6.0	500m	.50u	10Ø	10mØ	75	20u	400	1.0	7.0p	PE	MM10	A	
24#	BFW59	300m	80M§Δ	3.0m	♦J	40	35	6.0	500m	.50u	10Ø	10mØ	110	20u	400	1.0	7.0p	PE	MM10	A	
25#	BFW60	300m	80M§Δ	3.0m	♦J	40	35	6.0	500m	.50u	10Ø	10mØ	75	20u	400	1.0	7.0p	PE	MM10	A	
26	2N2569Ø	300m	100M§Δ	2.0m	§S	20		5.0	100m	.01uØ	10Ø	.10mØ	50 †Δ				10pØ	PE	TO18		AØ
27	2N2570Ø	300m	100M§Δ	2.0m	§S	20		5.0	100m	.01uØ	10Ø	.10mØ	50 †Δ						TO18		AØ
28	2N2722*	300m	100M§Δ	1.7m	§S	45	45	5.0	40m	1.0nØ	5.0Ø	100u	100 Δ	1.0uØb	32 Ø	6.0 Ø	6.0pØ	*	L2t		
29	2N2938†	300m	100M	2.0m	§S	25	13	5.0	500m		.35Ø	10mØ	125 †				3.5p	PEØ	TO52	A	
30#	2SC587	300m	100M§			45	35	5.0	30m	.01uØ	10Ø	2.0m	300				6pØ	PE	TO18		
31#	2SC587A	300m	100M§			45	35	5.0	30m	.01uØ	10Ø	2.0m	300				6pØ	PE	TO18		
32#	BC110	300m	100M§	2.0m	§J	80	80	8.0	50m	.10u								PE	TO18	A	
33#	BC170A	300m	100M§	3.0m	♦J		20	5.0	100m	100nØ	1.0Ø	1.0mØ	35 †Δ				4.0p$	PE†	X64	A	
34#	BC170B	300m	100M§	3.0m	♦J		20	5.0	100m	100nØ	1.0Ø	1.0mØ	80 †Δ				4.0p$	PE†	X64	A	
35#	BC170C	300m	100M§	3.0m	♦J		20	5.0	100m	100nØ	1.0Ø	1.0mØ	200 †Δ				4.0p$	PE†	X64	A	
36#	BCY42	300m	100M§Δ	5.0m	§J	40	25	5.0	100m	25nØ	5.0Ø	1.0mØ	45 †Δ				6pØ	PE	TO18		AØ
37#	BCY43	300m	100M§Δ	5.0m	§J	40	20	5.0	100m	25nØ	5.0Ø	1.0mØ	75 †Δ				6pØ	PE	TO18		AØ
38#	BSY79	300m	100M§	2.0m	§J	120		5.0	30m	.05uØ	1.0Ø	1.0mØ	30 †Δ				4.0p	PE	TO18		AØ
39	CI3704	300m	100M	2.4m	J	50	30	5.0	800m	100nØ	2.0Ø	50mØ	100 †#Δ				12pØ	DPL†	R127a	D	
40	CI3705	300m	100M	2.4m	J	50	30	5.0	800m	100nØ	2.0Ø	50mØ	150 †Ø				12pØ	DPL†	R127a	D	
41	CI3706	300m	100M	2.4m	J	50	30	5.0	800m	100nØ	2.0Ø	50mØ	600 †Ø				12pØ	DPL†	R127a	D	
42	CS3704	300m	100M§Δ	2.4m	§J	50	30	5.0	800m	.10uØ	2.0Ø	50mØ	100 †#Δ				12pØ	DPL	TO106	A	
43	CS3705	300m	100M§	2.4m	§J	50	30	5.0	800m	.10uØ	2.0Ø	50mØ	150 †Ø				12pØ	DPL	R97a		
44	CS3706	300m	100M§	2.4m	§J	50	30	5.0	800m	.10uØ	2.0Ø	50mØ	600 †Ø				12pØ	DPL	R97a		
45	GI3704	300m	100M§Δ	3.0m	♦J	50	30	5.0		.10uØ	2.0Ø	50mØ	300 Ø†Δ				12pØ	PE	R97d		
46	GI3705	300m	100M§Δ	3.0m	♦J	50	30	5.0		.10uØ	2.0Ø	50mØ	150 Ø†Δ				12pØ	PE	R97d		
47	GI3706	300m	100M§Δ	3.0m	♦J	40	20	5.0		.10uØ	2.0Ø	50mØ	300 Ø†Δ				12pØ	PE	R97d		
48#	NKT10419	300m	100M§	2.0m	§J	25	25	5.0	100m	.01uØ	10Ø	.01mØ	120 †				4.0p		TO18		AØ
49#	NKT10519	300m	100M§	2.0m	§J	25	25	5.0	100m	.01uØ	10Ø	.01mØ	240 †				4.0p		TO18		AØ
50	TI485†	300m	100M§Δ	2.4m	§J	20	14	3.0	50m	100u	10Ø	10mØ	38 †				6pØ	ME	TO18		AØ
51#	ZT40†	300m	110M§	2.5m	§J	20	20	6.0	50m	500n	6.0Ø	1.0mØ	30	2.5u	1.3k	1.1	5.0p		TO18		Ø
52#	ZT41†	300m	110M§	2.5m	§J	20	20	6.0	50m	500n	6.0Ø	1.0mØ	30	2.5u	1.3k	1.1	5.0p		TO18		Ø
53#	ZT42†	300m	110M§	2.5m	§J	45	45	6.0	50m	500n	6.0Ø	1.0mØ	50	2.5u	1.6k	1.1	5.0p		TO18		Ø
54#	ZT43†	300m	110M§	2.5m	§J	45	45	6.0	50m	500n	6.0Ø	1.0mØ	50	2.5u	1.6k	1.1	5.0p		TO18		Ø
55#	ZT44†	300m	110M§	2.5m	§J	45	45	6.0	50m	500n	6.0Ø	1.0mØ	65	2.5u	2.0k	1.1	5.0p		TO18		Ø
56#	ZT131	300m	110M§	2.4m	§A	75	55	3.0	50m	10u#	5.0Ø	3.0mØ	20 †Δ					PL	TO18		
57#	ZT132	300m	110M§	2.4m	§A	100	75	3.0	50m	10u#	5.0Ø	3.0mØ	20 †Δ					PL	TO18		
58	JAN2N930	300m	120M§Δ	2.0m	§J	60	45	6.0	30m	10nØ	5.0Ø	1.0mØ	150 Δ	1.0uØb	32 Ø	6.0 Ø	8.0pØ	Ø	TO18		AØ
59#	2SC367G	300m	120M§	3.0m	♦J	40	20	5.0	400m	500nØ	1.0Ø	100mØ	70 †				10p	PE	R67a	B	
60▼	MPSA20	300m	125M§Δ	2.7m	†J		40	4.0	100m	100n	10Ø	5.0mØ	40 †Δ*				4.0pØ	AN	TO92	A	
61#	BSY73	300m	145M§	2.0m	§J	25	18	5.0	100m	.10uØ	1.0Ø	1.0mØ	35 †Δ	4.5u	2.5k	.60	6.0p	PE	TO18		AØ
62#	BSY75	300m	145M§	2.0m	§J	40	32	7.0	250m	.05uØ	1.0Ø	1.0mØ	35 †Δ	4.0u	2.5k	.60	5.0p	PE	TO18		AØ
63#	BSY77	300m	145M§	2.0m	§J	80	64	7.0	250m	.05uØ	1.0Ø	1.0mØ	35 †Δ	3.6u	2.5k	.50	4.0p	PE	TO18		AØ
64	2N702	300m	150M§	2.0m	§S	25	25	5.0	50m	5.0u	5.0Ø	10mØ	40 †				3.0p	MEΔ	TO18		A
65	2N703	300m	150M§	2.0m	§S	25	25	5.0	50m	5.0u	5.0Ø	10mØ	70 †				3.0p	MEΔ	TO18		AØ
66#	2SC316	300m	150M	2.0m	§J	32	32	5.0	30m	.01uØ	5.0	2.0m	350					PLØ	TO18		
67#	2SC366G†	300m	150M§	3.0m	♦J	60	40	5.0	400m	.50uØ	1.0Ø	100mØ	30 †Δ*				10p	PE	RO67a	B	
68#	2SC499	300m	150M§	3.0m	♦J	100	100 §	2.0	20m	1.0uØ	12Ø	2.0m	80				3.5pØ	PL	R67a	B	
69#	2SC734	300m	150M§	3.0m	♦J	70	50	5.0	150m	.10uØ	1.0Ø	20mØ	40 †Δ*				5.0p	PE	RO67a	B	
70#	2SC943	300m	150M§Δ	2.4m	§J	60	40	8.0	200m	500nØ	1.0Ø	10mØ	80 †Δ				3.0p	PE	TO18		AØ
71#	BC107	300m	150M§	5.0u	#J	50	50 Ø	6.0	200m	15nŞ	5.0Ø	2.0mØ	300	20u	3.0k	3.6		PE	TO18		
72#	BC108	300m	150M§	5.0u	#J	30	30 Ø	6.0	200m	15nŞ	5.0Ø	2.0mØ	400	30u	4.0k	5.6		PE	TO18		
73#	BC109	300m	150M§	5.0u	#J	30	30 Ø	6.0	200m	15nŞ	5.0Ø	2.0mØ	500	40u	6.0k	7.0		PE	TO18		
74#	BC182	300m	150M§Δ	3.0m	§S	60	50	5.0	200m	.15uØ	5.0Ø	2.0mØ	480 Ø†				5pØ	PE	TO18		
75#	BC182L	300m	150M§Δ	3.0m	§S	45	30	5.0	200m	15nØ	5.0Ø	2.0mØ	125 Δ				5.0pØ	PE†	X20	B	
76#	BC183	300m	150M§Δ	3.0m	§S	45	30	5.0	200m	.15uØ	5.0Ø	2.0mØ	850 Ø†				5pØ	PE	TO18		
77#	BC183L	300m	150M§Δ	3.0m	§S	45	30	5.0	200m	15nØ	5.0Ø	2.0mØ	125 Δ				5.0pØ	PE†	X20	B	
78#	BC184	300m	150M§Δ	3.0m	§S	45	30	5.0	200m	.15uØ	5.0Ø	2.0mØ	250 Δ†				5pØ	PE	TO18		
79#	BC184L	300m	150M§Δ	3.0m	§S	45	30	5.0	200m	15nØ	5.0Ø	2.0mØ	240 Δ				5.0pØ	PEØ	X20	B	
80#	BC267	300m	150M§	10u	#J	50	50 Ø	6.0	1	15nŞ	5.0Ø	2.0mØ	300	20u	3.0k	3.6		PE	TO18		
81#	BC268	300m	150M§	10u	#J	30	30 Ø	6.0	1	15nŞ	5.0Ø	2.0mØ	400	30u	4.0k	5.6		PE	TO18		
82#	BC269	300m	150M§	10u	#J	30	30 Ø	6.0	1	15nŞ	5.0Ø	2.0mØ	500	40u	6.0k	7.0		PE	TO18		
83#	BC270	300m	150M§	10u	#J	20	20 Ø	6.0	1	.20uŞ	5.0Ø	2.0mØ	400	30u	4.0k	5.6		PE	TO18		
84#	BCW36	300m	150M	2.4m	§	60	45	5.0	600m	10n	5.0Ø	100mØ	100 Δ	5.0u	40k	10	6.0p	PE	TO18		
85#	BCY69	300m	150M§Δ	2.0m	§J	20	20	5.0	100m	150nØ	5.0Ø	2.0mØ	750				5.5p	PE	TO18		Ø
86#	BFS29	300m	150M	2.4m	$	45	45	5.0	200m	20n	15Ø	100mØ	40 †Δ				5.0p	PE	u34		
87#	BFS30	300m	150M	2.4m	$	45	45	5.0	200m	20n	15Ø	100uØ	60 †Δ				5.0p	PE	u34		
88#	BFS31	300m	150M	2.4m	$	45	30	5.0	200m	20n	15Ø	100uØ	80 †Δ				5.0p	PE	u34		
89#	BFY39	300m	150M§	2.0m	§J	45	25	5.0	100m	50uØ	10Ø	10mØ	35 †				5.0p	PL	TO18		
90#	BFY39/I	300m	150M§	2.0m	§J	45	25	5.0	100m	.05uØ	10Ø	10mØ	35 Δ†	8.0u	3.2k	.30		PL	TO18	A	
91#	BFY39/II	300m	150M§	2.0m	§J	45	25	5.0	100m	.05uØ	10Ø	10mØ	200 Ø†	8.0u	3.2k	.30		PL	TO18	A	
92#	BFY39/III	300m	150M§	2.0m	§J	45	25	5.0	100m	.05uØ	10Ø	10mØ	400 Ø†	8.0u	3.2k	.30		PL	TO18	A	
93	SA2719*	300m	150M§Δ	2.0m	§J	60	50	6.0		2nØ	5.0Ø	.01mØ	75 †Δ				3pØ	*Ø	L2t		
94	SA2720*	300m	150M§Δ	2.0m	§J	60	50	6.0		2nØ	5.0Ø	.01mØ	75 †Δ				3pØ	*Ø	L2t		
95	SA2721*	300m	150M§Δ	2.0m	§J	60	50	6.0		2nØ	5.0Ø	.01mØ	75 †Δ				3pØ	*Ø	L2t		
96	SA2722*	300m	150M§Δ	2.0m	§J	50	30	6.0		2nØ	5.0Ø	.01mØ	75 †Δ				3pØ	*Ø	L2t		
97	SA2723*	300m	150M§Δ	2.0m	§J	50	30	6.0		2nØ	5.0Ø	.01mØ	75 †Δ				3pØ	*Ø	L2t		
98	SA2724*	300m	150M§Δ	2.0m	§J	50	30	6.0		2nØ	5.0Ø	.01mØ	75 †Δ				3pØ	*Ø	L2t		
99	SA2726*	300m	150M§Δ	2.0m	§J	50	25	6.0		2nØ	5.0Ø	.10mØ	100 †Δ				3pØ		L2t		
100	SA2738*	300m	150M§Δ	2.0m	§J	50	30	6.0		2nØ	5.0Ø	.01mØ	75 †Δ				3pØ	Ø*	L2t		
101	SA2739*	300m	150M§Δ	2.0m	§J	50	30	6.0		2nØ	5.0Ø	.01mØ	75 †Δ				3pØ	Ø*	L2t		
102#	ZDT10	300m	150M§	2.4m	§J	10	10	5.0	50m	.01uØ	6.0Ø	.20mØ	20 †Δ				8pØ	PL	L2h		
103#	ZDT11	300m	150M§	2.4m	§J	10	10	5.0	50m	.01uØ	6.0Ø	.20mØ	20 †Δ				8pØ	PL	L2H		
104#	ZDT20	300m	150M§	2.4m	§J	35	35	5.0	50m	.01u	6.0Ø	.20mØ	20 †Δ				8pØ	PL	L2h		
105#	ZDT21	300m	150M§	2.4m	§J	35	35	5.0	50m	.01u	6.0Ø	.20mØ	20 †Δ				8pØ	PL	L2h		
106#	ZTX300	300m	150MΔ§	3.0m	♦A	25	25	5.0	500m	200n	6.0Ø	10mØ	50 Δ†				6.0p	PLØ	X59	F	
107#	ZTX301	300m	150MΔ§	3.0m	♦A	35	35	5.0	500m	200n	6.0Ø	10mØ	50 Δ†				6.0p	PLØ	X59	F	
108#	ZTX302	300m	150MΔ§	3.0m	♦A	35	35	5.0	500m	200n	6.0Ø	10mØ	100 Δ†				6.0p	PLØ	X59	F	
109#	ZTX303	300m	150MΔ§	3.0m	♦A	45	45	5.0	500m	200n	6.0Ø	10mØ	50 Δ†				6.0p	PLØ	X59	F	
110#	ZTX304	300m	150MΔ§	3.0m	♦A	70	70	5.0	500m	200n	6.0Ø	10mØ	50 Δ†				6.0p	PLØ	X59	F	

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	2SC248	300m	170M§	2.0m	§J	70	60 §	5.0	50m	1.0uØ	6.0Ø	2.5m	60				2.5p	PL	TO18	
2#	2SC318	300m	170M§		§J	50	30	5.0	100m	.20uØ	3.0Ø	1.0mØ	90 †				3.0p	PE	TO18	
3#	2SC318A	300m	170M§	2.0m	§J	50	30	5.0	100m	.20uØ	3.0Ø	1.0mØ	90 †				4.5pØ	D	TO18	
4#	BSY72	300m	170M§	2.0m	§J	25	18	5.0	30m	.10uØ	1.0Ø	1.0mØ	80 †Δ	8.0u	5.0k	1.2	6.0p	PE	TO18	AØ
5#	BSY74	300m	170M§	2.0m	§J	25	18	5.0	100m	.10uØ	1.0Ø	1.0mØ	80 †Δ	8.0u	5.0k	1.2	6.0p	PE	TO18	AØ
6#	BSY76	300m	170M§	2.0m	§J	40	32	7.0	250m	.05uØ	1.0Ø	1.0mØ	80 †Δ	7.0u	5.0k	1.0	5.0p	PE	TO18	AØ
7#	BSY78	300m	170M§	2.0m	§J	80	64	7.0	250m	.05uØ	1.0Ø	1.0mØ	80 †Δ	5.5u	5.0k	.80	4.0p	PE	TO18	AØ
8#	2SC856	300m	180M§			150	150	5.0		1.0m	6.0Ø	10mØ	30 †Δ						TO1	
9#	2SC917	300m	180M§			40	40	3.0	50m	100u	10Ø	10mØ	8.0				1.0p	P	TO1	
10	SA2710*	300m	180M§Δ	2.0m	§J	60	50	6.0		2nØ	5.0Ø	.01mØ	40 †Δ				3pØ	*Ø	L2t	
11	SA2711*	300m	180M§Δ	2.0m	§J	60	50	6.0		2nØ	5.0Ø	.01mØ	150 †Δ				3pØ	*Ø	L2t	
12	SA2712*	300m	180M§Δ	2.0m	§J	60	50	6.0		2nØ	5.0Ø	.01mØ	150 †Δ				3pØ	*Ø	L2t	
13	SA2713*	300m	180M§Δ	2.0m	§J	60	50	6.0		2nØ	5.0Ø	.01mØ	150 †Δ				3pØ	*Ø	L2t	
14	SA2714*	300m	180M§Δ	2.0m	§J	60	50	6.0		2nØ	5.0Ø	.01mØ	150 †Δ				3pØ	*Ø	L2t	
15	SA2715*	300m	180M§Δ	2.0m	§J	50	30	6.0		2nØ	5.0Ø	.01mØ	40 †Δ				3pØ	*Ø	L2t	
16	SA2716*	300m	180M§Δ	2.0m	§J	50	30	6.0		2nØ	5.0Ø	.01mØ	150 †Δ				3pØ	*Ø	L2t	
17	SA2717*	300m	180M§Δ	2.0m	§J	50	30	6.0		2nØ	5.0Ø	.01mØ	150 †Δ				3pØ	*Ø	L2t	
18	SA2718*	300m	180M§Δ	2.0m	§J	50	30	6.0		2nØ	5.0Ø	.01mØ	150 †Δ				3pØ	*Ø	L2t	
19	SA2725*	300m	180M§Δ	2.0m	§J	50	25	6.0		2nØ	5.0Ø	.10mØ	200 †Δ				3pØ		L2t	
20	JAN2N706†	300m	200M§Δ	2.0m	▼S	25	15	5.0		100nØ	1.0Ø	10mØ	30 †Δ				6.0pØ		TO18	
21	2N706A†	300m	200M§Δ	2.0m	§J	25	15	5.0		10u	1.0Ø	10mØ	20				3.5p	ME	TO18	AØ
22	2N783†	300m	200M§Δ	2.0m	§J	40	20 §	5.0	200m	.25uØ	1.0Ø	10mØ	20 †Δ				3.5pØ		TO18	AØ
23	2N784†	300m	200M§Δ	2.0m	§J	30	15 §	5.0	200m	.25uØ	1.0Ø	10mØ	25 Δ				3.5pØ		TO18	AØ
24	2N1708†	300m	200M§Δ	2.0m	§	25	20 §	3.0	200m	25nØ	1.0Ø	10mØ	20 Δ				6.0pØ	PE	TO46	AØ
25	2N2205†	300m	200M§Δ	2.0m	§	25	20 §	3.0	200m	25nØ	1.0Ø	10mØ	20 Δ				6.0pØ	PE	TO18	AØ
26	2N2206†	300m	200M§Δ	6.6m	§	25	20 §	3.0		25nØ	1.0Ø	10mØ	90				6.0pØ	PE	TO46	AØ
27	2N5129	300m	200M§Δ	3.0m	♦J	15	12	3.0	500m	.05uØ	10Ø	50mØ	35 †Δ				10p$		TO106	A
28#	2SC896	300m	200M§	2.0m	§J	55	30	5.0	200m	1.0uØ	10Ø	5.0m	70				3.5p	PE	TO46	AØ
29#	BC174A	300m	200M§	3.0m	♦J		64	5.0	100m	15n	5.0Ø	2.0mØ	125 Δ	18u	2.7k	1.5	4.0p$	PE†	X64	A
30#	BC174B	300m	200M§	3.0m	♦J		64	5.0	100m	15n	5.0Ø	2.0mØ	240 Δ	30u	4.5k	2.0	4.0p$	PE†	X64	A
31#	BFY37	300m	200M§Δ	2.0m	§J	25	20	5.0	100m	.10uØ	10Ø	10mØ	35 †Δ				2.3p	PL	TO18Ø	
32#	BSX24	300m	200M§	2.0m	§J	32	32	5.0	100m	.05uØ	5.0Ø	50mØ	35 †Δ				5.0p	PE	TO18	
33#	BSX66†	300m	200M§Δ	2.0m	§J	30	20	5.0	100m	.01uØ	0.0	10mØ	40 †Δ				5pØ$	PE	TO18	AØ
34#	BSX67†	300m	200M§Δ	2.0m	§J	30	20	5.0	100m	.01uØ	0.0	10mØ	60 †Δ				5pØ$	PE	TO18	AØ
35#	BSX89†	300m	200M§Δ	2.0m	§J	25	15	5.0	500m	.50uØ	1.0Ø	10mØ	20 †#Δ				2.5p	DPE	TO18	AØ
36#	BSY26†	300m	200M§Δ	2.0m	§J	20	15	6.0	100m	25nØ	2.0Ø	10mØ	20 †Δ				6.0pØ	PE	TO18	AØ
37#	BSY27†	300m	200M§Δ	2.0m	§J	20	15	6.0	100m	25nØ	2.0Ø	10mØ	40 †Δ				6.0pØ	PE	TO18	AØ
38#	BSY95A	300m	200M§Δ	2.0m	§J	20	15	5.0	100m	.05uØ		10mØ	50 †Δ				6pØ	PEΔ	TO18	AØ
39	SA2644*	300m	200M§Δ	2.0m	§J	50	25	5.0		5.0nØ	5.0Ø	100uØ	100 †Δ				5.0pØ	E*	L2b	
40	SA2648*	300m	200M§Δ	2.0m	§J	50	25	5.0		5.0nØ	5.0Ø	100uØ	100 †Δ				5.0pØ	E*	L2b	
41#	ZT80†	300m	200M§	2.4m	§J	25	25	4.0	500m	.50u	6.0Ø	1.0mØ	55	5.3u	2.4k	1.5	4.5p	PLØ	TO18	AØ
42#	ZT81†	300m	200M§	2.4m	§J	45	35	4.0	500m	.50u	6.0Ø	1.0mØ	55	5.3u	2.4k	1.5	4.5p	PLØ	TO18	AØ
43#	ZT82†	300m	200M§	2.4m	§J	45	35	4.0	500m	.50u	6.0Ø	1.0mØ	90	5.9u	3.2k	1.8	4.5p	PLØ	TO18	AØ
44#	ZT83†	300m	200M§	1.8m	§J	60	45	5.0	500m	.05u	6.0Ø	1.0mØ	55	5.3u	2.4k	1.5	4.5p	PLØ	TO18	AØ
45#	ZT84†	300m	200M§	1.8m	§J	60	45	5.0	500m	.05u	6.0Ø	1.0mØ	90	5.9u	3.2k	1.8	4.5p	PLØ	TO18	AØ
46#	ZT86†	300m	200M§	1.8m	§J	100	80	5.0	500m	.05u	6.0Ø	1.0mØ	55	5.3u	2.4k	1.5	4.5p	PLØ	TO18	AØ
47#	ZT87†	300m	200M§	2.4m	§J	25	25	4.0	500m	.50u	6.0Ø	1.0mØ	90	5.9u	3.2k	1.8	4.5p	PLØ	TO18	AØ
48#	ZT88†	300m	200M§	1.8m	§J	100	80	5.0	500m	.05u	6.0Ø	1.0mØ	90	5.9u	3.2k	1.8	4.5p	PLØ	TO18	AØ
49	ZT89†	300m	200M§Δ	1.7m	§J	70	70	5.0	500m	500n	6.0Ø	1.0mØ	90	5.9u	32k	1.8	4.5p	PLØ		
50#	ZT110†	300m	200M§Δ	2.5m	§J	25	25	4.0	500m	500nØ	6.0Ø	1.0mØ	55	5.3m	2.4k	1.5	4.5pØ	PLØ	TO46	Ø
51#	ZT111†	300m	200M§Δ	2.5m	§J	45	35	4.0	500m	500nØ	6.0Ø	1.0mØ	55	5.3m	2.4k	1.5	4.5pØ	PLØ	TO46	Ø
52#	ZT112†	300m	200M§	2.5m	§J	45	35	4.0	500m	500n	6.0Ø	1.0mØ	90	5.9m	3.2k	1.8	4.5pØ	PLØ	TO46	Ø
53#	ZT113†	300m	200M§	1.7m	§J	60	45	5.0	500m	50n	6.0Ø	1.0mØ	55	5.3m	2.4k	1.5	4.5pØ	PLØ	TO46	Ø
54#	ZT114†	300m	200M§	1.7m		60	45	5.0	500m	50n	6.0Ø	1.0mØ	90	5.9m	3.2k	1.8	4.5pØ	PLØ	TO46	Ø
55#	ZT116†	300m	200M§	1.7m		100	80	5.0	500m	50n	6.0Ø	1.0mØ	55	5.3m	2.4k	1.5	4.5pØ	PLØ	TO46	Ø
56#	ZT117†	300m	200M§	2.5m	§J	25	25	4.0	500m	500n	6.0Ø	1.0mØ	90	5.9m	3.2k	1.8	4.5pØ	PLØ	TO46	Ø
57#	ZT118†	300m	200M§	1.7m	§J	100	80	5.0	500m	50n	6.0Ø	1.0mØ	90	5.9m	3.2k	1.8	4.5pØ	PLØ	TO46	Ø
58#	ZT119†	300m	200M§	1.7m	§J	70	70	5.0	500m	50n	6.0Ø	1.0mØ	90	5.9m	3.2k	1.8	4.5pØ	PLØ	TO46	Ø
59#	ZT706	300m	200M§Δ	2.0m	§J	25	20 §	3.0		500nØ	1.0Ø	10mØ	20 †				5.0p	PL	TO18	Ø
60#	ZT706A†	300m	200M§Δ	2.0m	§J	25	20 §	5.0		500nØ	1.0Ø	10mØ	20 †				5.0p	PL	TO18	Ø
61#	ZT1708†	300m	200M§Δ	2.0m	§	25	20	3.0	200m	25n	1.0Ø	10mØ	20 †Δ				6.0pØ	PE	TO46	
62#	ZT2205†	300m	200M§Δ	2.0m		25	20	3.0	200m	25n	1.0Ø	10mØ	20 †Δ				6.0pØ	PE	TO18	
63#	ZT2206†	300m	200M§Δ		§A	25	20 §	3.0	200m	25nØ	1.0Ø	10	40 †Δ				6.0pØ	PL	TO46	Ø
64♦#	ZTX310	300m	200M§Δ	3.0m	♦A	25	20 §	3.0	500m#	200nØ	1.0Ø	10mØ	20 †Δ				6.0pØ	PLΔ	X59	F
65♦#	ZTX311	300m	200M§Δ	3.0m	♦A	20	15	5.0	500m#	200nØ	.35Ø	1.0mØ	30 †Δ				6.0pØ	PLΔ	X59	F
66#	BSY80	300m	210M§	2.0m	§J	25	18	5.0	100m	.10uØ	1.0Ø	1.0mØ	200 †Δ	15u	12k	1.5	6.0p	PE	TO18	AØ
67#	BFY18†	300m	245M§	2.0m	§J	40	25	3.0	100m	10u	9.0Ø	10mØ	64				3.8p	PLØ	TO5	
68	2N2256†	300m	250M§Δ	2.0m	§J	7.0	7.0	1.0	100m	10uØ	1.0Ø	10mØ	30 †				4.0p	ME	TO18	A
69	2N2257†	300m	250M§Δ	2.0m	§J	7.0	7.0	1.0	100m	10uØ	1.0Ø	10mØ	50 †				4.0p	E	TO18	A
70	2N4140†	300m	250M§Δ	3.0m	♦J	60	30	5.0	200m	50u#	10Ø	150mØ	120 †Ø				8.0pØ		R110	A
71	2N4141†	300m	250M§Δ	3.0m	♦J	60	30	5.0	200m	50u#	10Ø	150mØ	300 †Ø				8.0pØ		R110	A
72	2N4227†	300m	250M§Δ	3.0m	♦J	60	30	5.0	200m	50u#	10Ø	150mØ	150 †Ø				8.0pØ		R110	A
73#	2S512	300m	250M§Δ	2.0m	§J	25	12	5.0		.50uØ	1.0Ø	10mØ	50 †Δ				6pØ	PE	TO18	
74♦#	AT400	300m	250M§Δ	2.4m	§J	50	30	5.0	500m	200nØ	10Ø	150mØ	30 †Δ				8.0pØ	PE	MM12a	D
75▼#	AT401	300m	250M§Δ	2.4m	§J	50	30	5.0	500m	200n	10Ø	150mØ	100 Δ				8.0pØ	PE	MM12a	D
76▼#	AT402	300m	250M§Δ	2.4m	§J	50	45	5.0	500m	200n	10Ø	150mØ	30 Δ				8.0pØ	PE	MM12a	D
77▼#	AT403	300m	250M§Δ	2.4m	§J	50	45	5.0	500m	200n	10Ø	150mØ	100 Δ				8.0pØ	PE	MM12a	D
78▼#	AT404	300m	250M§Δ	2.4m	§J	50	30	5.0	500m	200n	10Ø	150mØ	30 Δ				8.0pØ	PE	MM12a	D
79▼#	AT405	300m	250M§Δ	2.4m	§J	50	45	5.0	500m	200n	10Ø	150mØ	30 Δ				8.0pØ	PE	MM12a	D
80#	BC171A	300m	250M§	3.0m	♦J		45	5.0	100m	15n	5.0Ø	2.0mØ	125 Δ	18u	2.7k	1.5	4.0p$	PE†	X64	A
81#	BC171B	300m	250M§	3.0m	♦J		45	5.0	100m	15n	5.0Ø	2.0mØ	240 Δ	30u	4.5k	2.0	4.0p$	PE†	X64	A
82#	BC172A	300m	250M§	3.0m	♦J		20	5.0	100m	15n	5.0Ø	2.0mØ	125 Δ	18u	2.7k	1.5	4.0p$	PE†	X64	A
83#	BC172B	300m	250M§	3.0m	♦J		20	5.0	100m	15n	5.0Ø	2.0mØ	240 Δ	30u	4.5k	2.0	4.0p$	PE†	X64	A
84#	BC172C	300m	250M§	3.0m	♦J		20	5.0	100m	15n	5.0Ø	2.0mØ	450 Δ	60u	8.7k	3.0	4.0p$	PE†	X64	A
85▼#	BC222	300m	250M§	3.0m	♦J	30	30	5.0	500m	50n	1.0Ø	200u	20 †Δ	105m	425	1.2	11p	DPE	TO105	
86#	BCY56	300m	250M§	2.0m	§J	45	45	5.0	100m	100nØ	5.0Ø	2.0mØ	200 †	17u	3.5k	1.7	4.5p	PE	TO18	
87#	BF234	300m	250M§	3.0m	♦J	30	30	4.0	30m	1nØ	10Ø	1.0mØ	150 †				.75pt	PEØ	R110	C
88#	BF235	300m	250M§	3.0m	♦J	30	30	4.0	30m	1nØ	10Ø	1.0mØ	70 †				.75pt	PEØ	R110	C
89#	BSX76†	300m	250M§	2.0m	§J	20	20	5.0	100m	.05uØ	.40Ø	10mØ	80 †					PL	TO18	AØ
90#	BSX77†	300m	250M§	2.0m	§J	40	20	5.0	100m	.05uØ	.50Ø	10mØ	80 †					PL	TO18	AØ
91	GI3641	300m	250M§	3.0m	♦J	60	30	5.0		.05u§	10Ø	150mØ	40 †Δ				8pØ	PEΔ	R97d	
92	GI3643	300m	250M§	3.0m	♦J	60	30	5.0		.05u§	10Ø	150mØ	40 †Δ				8pØ	PEΔ	R97d	
93	JAN2N744†	300m	280M§Δ	2.0m	§J	20	15	5.0	200m	500n	.35Ø	10mØ	40 †Δ				5.0pØ		TO18	AØ
94#	BSX78†	300m	285M§	2.0m	§J	40	20	5.0	100m	.05uØ	.50Ø	10mØ	120 †					PL	TO18	AØ
95#	ZDT40*	300m	290M§	2.0m	§J	45	35 Ø	4.0	500m#	.50u	6.0Ø	10mØ	200 †#Ø				8pØ	PL	L2d	
96#	ZDT41*	300m	290M§	2.0m	§J	60	45 Ø	7.0	500m#	.05u	6.0Ø	10mØ	170 †#Ø				8pØ	PL	L2d	
97#	ZDT42*	300m	290M§	2.0m	§J	60	60 Ø	7.0	500m#	.05u	6.0Ø	1.0mØ	180 †Ø				8pØ	PL	L2d	
98#	ZDT44*	300m	290M§	2.0m	§J	60	60 Ø	7.0	500m#	.05u	6.0Ø	1.0mØ	180 †Ø				8pØ	PL	L2d	
99#	ZDT45*	300m	290M§	2.0m	§J	100	70 Ø	7.0	500m#	.05u	6.0Ø	1.0mØ	60 †Δ				8pØ	PL	L2d	
100♦	2N988	300m	300M§Δ	6.7k	§J	20	10	3.0	220m	500nØ	1.0Ø	10mØ	20 †Δ				4.0pØ		TO18	AØ
101♦	2N989	300m	300M§Δ	6.7k	§J	20	10	3.0	220m	500nØ	1.0Ø	10mØ	20 †Δ				3.5pØ		TO18	AØ
102	2N2413	300m	300M§Δ	2.0m	§S	40	18	5.0	200m	.10uØ	10Ø	10mØ	30 †Δ				5pØ	EM	TO18	AØ
103	2N3261†	300m	300M§Δ	2.0m	§S	40	15	6.0	500m		1.0Ø	200mØ	20 †#Δ				3.5pØ		TO52	AØ
104	2N3425*	300m	300M§Δ	1.7m	§J	40	15	5.0		25n	1.0Ø	10mØ	20 Δ				6.0pØ	Δ	L2t	
105#	2SC383	300m	300M§Δ	1.7m	§S	20	15	5.0	200m	50nØ	.35Ø	1.0mØ	30 †Δ				6.0pØ	PE	TO18	Ø
106#	2SC735	300m	300M§Δ	3.0m	♦J	75	40	3.0	50m	25uØ	13Ø	12mØ	20 †Δ				2.0pØ	PE†	R67a	B
107#	2SC735	300m	300M§	3.0m	♦J	35	30	5.0	400m	.10uØ	1.0Ø	100mØ	40 †Δ*				7.0p	PE	RO67a	B
108	40405	300m	300M§Δ	2.0m	§J		16	6.0	500m	.40u§	1.0Ø	100mØ	20 †Δ				3.5pØ	PE	TO52	AØ
109	40519	300m	300M§Δ	2.0m	§J		16	5.0	500m	25n	1.0Ø	50mØ	20 †Δ				3.5pØ	PE	TO52	A
110	40637	300m	300M§	2.0m	§J		30 Ø	5.0	100m								3.0p	PE	TO52	AØ

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T E M A X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	A157A	300m	300M§	2.0m	§J	50	45	5.0	100m	15uτØ	5.0Ø	2.0mØ	220	18u	2.7k	1.5	2.5p$	PE	TO18	AØ
2	A157B	300m	300M§	2.0m	§J	50	45	5.0	100m	15uτØ	5.0Ø	2.0mØ	330	30u	4.5k	2.0	2.5p$	PE	TO18	AØ
3	A158B	300m	300M§	2.0m	§J	30	20	5.0	100m	15uτØ	5.0	2.0mØ	330	30u	4.5k	2.0	2.5p$	PE	TO18	AØ
4	A158C	300m	300M§	2.0m	§J	30	20	5.0	100m	15uτØ	5.0	2.0mØ	600	60u	8.7k	3.0	2.5p$	PE	TO18	AØ
5	A159B	300m	300M§	2.0m	§J	30	20	5.0	100m	15uτØ	5.0	2.0mØ	330	30u	4.5k	2.0	2.5p$	PEØ	TO18	AØ
6	A159C	300m	300M§	2.0m	§J	30	20	5.0	100m	15uτØ	5.0	2.0mØ	600	60u	8.7k	3.0	2.5p$	PEØ	TO18	AØ
7#	BC107A	300m	300M§	2.0m	§J	45	45	5.0	100m	15n	5.0Ø	2.0mØ	180 †	18u	2.7k	1.5	3.7p	PEØ	R18	Ø
8#	BC107B	300m	300M§	2.0m	§J	45	45	5.0	100m	15n	5.0Ø	2.0mØ	290 †	30u	4.8k	2.0	3.7p	PEØ	R18	Ø
9#	BC108A	300m	300M§	3.3m	§J	20	20	5.0	100m	15n	5.0Ø	2.0mØ	180 †	18u	2.7k	1.5	3.7p	PEØ	R18	Ø
10#	BC108B	300m	300M§	2.0m	§J	20	20	5.0	100m	15n	5.0Ø	2.0mØ	290 †	30u	4.8k	2.0	3.7p	PEØ	R18	Ø
11#	BC108C	300m	300M§	2.0m	§J	20	20	5.0	100m	15n	5.0Ø	2.0mØ	520 †	60u	8.7k	3.0	3.7p	PEØ	R18	Ø
12#	BC109B	300m	300M§	2.0m	§J	20	20	5.0	100m	15n	5.0Ø	2.0mØ	290 †	30u	4.8k	2.0	3.7p	PEØ	R18	Ø
13#	BC109C	300m	300M§	2.0m	§J	20	20	5.0	100m	15n	5.0Ø	2.0mØ	520 †	60u	8.7k	3.0	3.7p	PEØ	R18	Ø
14#	BC173B	300m	300M§	3.0m	♦J		20	5.0	100m	15n	5.0Ø	2.0mØ	240 Δ	30u	4.5k	2.0	4.0p$	PE†	X64	A
15#	BC173C	300m	300M§	3.0m	♦J		20	5.0	100m	15n	5.0Ø	2.0mØ	450 Δ	60u	8.7k	3.0	4.0p$	PE†	X64	A
16#	BC207A	300m	300M§	3.0m	♦J	45	45	5.0	100m	15n	5.0Ø	2.0mØ	200	18u	2.7k	1.5	2.5p	EØ	R110	A
17#	BC207B	300m	300M§	3.0m	♦J	45	45	5.0	100m	15n	5.0Ø	2.0mØ	330	30u	4.8k	2.0	2.5p	EØ	R110	A
18#	BC208A	300m	300M§	3.0m	♦J	20	20	5.0	100m	15n	5.0Ø	2.0mØ	200	18u	2.7k	1.5	2.5p	EØ	R110	A
19#	BC208B	300m	300M§	3.0m	♦J	20	20	5.0	100m	15n	5.0Ø	2.0mØ	330	30u	4.8k	2.0	2.5p	EØ	R110	A
20#	BC208C	300m	300M§	3.0m	♦J	20	20	5.0	100m	15n	5.0Ø	2.0mØ	600	60u	8.7k	3.0	2.5p	EØ	R110	A
21#	BC209B	300m	300M§	3.0m	♦J	20	20	5.0	100m	15n	5.0Ø	2.0mØ	330	30u	4.8k	2.0	2.5p	EØ	R110	A
22#	BC209C	300m	300M§	3.0m	♦J	20	20	5.0	100m	15n	5.0Ø	2.0mØ	600	60u	8.7k	3.0	2.5p	EØ	R110	A
23	BF165	300m	300M§	3.0m	♦J	30	15	4.0		.10uØ	10Ø	2.0mØ	35 †#				1.5pt	DPLØ	R97	
24#	BFV83	300m	300M§Δ	588u	§J	40	15	5.0		25nØ	1.0Ø	500uØ	15 †Δ				6.0pØ	PEΔ	u26a	B
25#	BFV83A†	300m	300M§Δ	588u	§J	40	20	5.0		25nØ	1.0Ø	10mØ	30 †Δ#				6.0pØ	PE	u26a	B
26#	BSW42†	300m	300M§	3.0m	♦J	25	25	5.0	200m	.50u	4.5Ø	2.0mØ	130 †				4.0p	E	R110	A
27#	BSW42A†	300m	300M§	3.0m	♦J	50	50	7.0	200m	.50u	4.5Ø	2.0mØ	130 †				4.0p	E	R110	A
28#	BSW43†	300m	300M§	3.0m	♦J	25	25	5.0	200m	.50u	4.5Ø	2.0mØ	300 †				4.0p	E	R110	A
29#	BSW43A†	300m	300M§	3.0m	♦J	50	50	7.0	200m	.50u	4.5Ø	2.0mØ	300 †				4.0p	E	R110	A
30#	BSW92†	300m	300M§	3.0m	♦J	18	18	5.0	200m	.50u	4.5Ø	2.0mØ	75 †				5.0p	E	R110	A
31#	BSX51†	300m	300M§	2.0m	§A	25	25	5.0	200m	500n	4.5Ø	2.0mØ	130 †				8.0pØ	PE	TO18	Ø
32#	BSX51A†	300m	300M§	2.0m	§A	50	50	7.0	200m	500n	4.5Ø	2.0mØ	130 †				8.0pØ	PE	TO18	Ø
33#	BSX52†	300m	300M§	2.0m	§A	25	25	5.0	200m	500n	4.5Ø	2.0mØ	300 †				8.0pØ	PE	TO18	Ø
34#	BSX52A†	300m	300M§	2.0m	§A	50	50	7.0	200m	.50u	4.5Ø	2.0mØ	300 †				8pØ	PE	TO18Ø	
35#	BSX90†	300m	300M§Δ	2.0m	§J	20	12	5.0	200m	1.0u	.35Ø	10mØ	20 †#Δ				5pØ	DPE	TO18	AØ
36#	BSX91†	300m	300M§Δ	2.0m	§J	20	12	5.0	200m	1.0u	.35Ø	10mØ	40 †#Δ				5pØ	DPE	TO18	AØ
37#	BSY17	300m*	300M§Δ	2.0m	§J	20	12	5.0	200m	25n	.35Ø	10mØ	40 †				5.0p	PEΔ	TO18	
38#	BSY18	300m*	300M§Δ	2.0m	§J	20	12	5.0	200m	25n	.35Ø	10mØ	80 †				5.0p	PEΔ	TO18	
39#	BSY63	300m*	300M§Δ	2.0m	§J	40	15	5.0	200m	25nØ	1.0Ø	10mØ	75 †				6.0p	PEΔ	TO18	
40	MD708*	300m	300M§Δ	1.9m	§J	40	15	5.0	200m	20nØ	1.0Ø	10mØ	40 †Δ#				5.0pØ	ANΔ	L66a	
41	MD708A*	300m	300M§Δ	1.9m	§J	40	15	5.0	200m	20nØ	1.0Ø	10mØ	40 †Δ#				5.0pØ	ANΔ	L66a	
42	MD708B*	300m	300M§Δ	1.9m	§J	40	15	5.0	200m	20nØ	1.0Ø	10mØ	40 †Δ#				5.0pØ	ANΔ	L66a	
43#	ST50Ø	300m	300M§Δ		§S	25	12	5.0		25nØ	1.0Ø	10mØ	30 †Δ				6.0pØ	PEΔ	TO18	Ø
44	STE400	300m	300M§Δ	3.0m	♦J	40	30	5.0		.05uØ	1.0Ø	2.0mØ	150 †Ø				3pØ		R97d	
45	STE401	300m	300M§Δ	3.0m	♦J	30	25	5.0		.05uØ	1.0Ø	2.0mØ	360 †Ø				3pØ		R97d	
46	2N706†	300m	320MΔ	2.0m	§J	25	20 §	3.0		.05uØ	1.0Ø	10mØ	20 †#Δ				6pØ	D	TO18	AØ
47#	BSY70	300m	320MΔ	2.0m	§J	25	20 §	3.0		50nØ	1.0Ø	10mØ	20 †Δ#				6.0pØ	Δ	TO18	Ø
48#	2S131	300m	350M	2.0m	§A	15	12	5.0	200m	1.0uØ	1.0Ø	10mØ	40				3.5p	E	TO18	
49#	2SC54†	300m	350M§	2.3m	§J	40	35 §	5.0	100m	30nØ	6.0Ø	1.0m	50	100nb	28	1.5	4.0p	PLΔ	TO18	
50#	2SC98†	300m	350M§		§J	20	15	5.0	100m	.10u	.35Ø	10mØ	45 †					PE	TO18	
51#	2SC99†	300m	350M§		§J	20	15	5.0	100m	.10u	.35Ø	10mØ	80 †					E	TO18	
52#	2SC172	300m	350M§	2.0m	§J	25	20 §	5.0	50m	.10uØ	6.0Ø	10m	60				5.0p	PL	TO18	
53#	BCY57	300m	350M§	2.0m	§J	25	20	5.0	100m	.10uØ	5.0Ø	2.0mØ	400 †	35u	7.5k	3.5	4.5p	PE	TO18	
54#	BFV83B†	300m	350M§Δ	588u	§J	40	40	5.0	200m	.30u§	.40Ø	30mØ	30 †#Δ				5pØ	PE	u26a	B
55#	BFV83C†	300m	350M§Δ	588u	§J	40	40	5.0	200m	.30u§	.40Ø	10mØ	25 †#Δ				5pØ	PE	u26a	B
56#	BSY38†	300m	350M§	2.0m	§J	20	15	5.0	200m	100n	.35Ø	10mØ	30 †Δ				5.0p	PE	TO18	Ø
57#	BSY39†	300m	350M§	2.0m	§J	20	15	5.0	200m	100n	.35Ø	10mØ	40 †Δ				5.0p	PE	TO18	Ø
58#	C111E†	300m	350M§	1.7m	§S	25	12	5.0		.05uØ	1.0Ø	10mØ	70 †#				4.5p	PE	TO18	AØ
59#	C444	300m	350M§	2.0m	§J	50	35	4.0		30nØ	5.0Ø	5.0mØ	80	30u	1.0k		3.0p	DPL	TO18	AØ
60#	ZT2938†	300m	350M§Δ	2.0m	§J	25	13	5.0	500m	25n#	1.0Ø	200mØ	10 †Δ#				4.0pØ	PE	TO18	Ø
61#	ZTX107	300m	350M§	3.0m	♦J	45	45	5.0	100m	200n	5.0Ø	2.0mØ	125 Δ	30u	4.8k	4.1	4.5p	PLØ	X59	F
62#	ZTX108	300m	350M§	3.0m	♦J	20	20	5.0	100m	200n	5.0Ø	2.0mØ	125 Δ	30u	4.8k	4.1	4.5p	PLØ	X59	F
63#	ZTX109	300m	350M§	3.0m	♦J	20	20	5.0	100m	200n	5.0Ø	2.0mØ	240 Δ	40u	7.3k	6.4	4.5p	PLØ	X59	F
64	2N3828	300m	360M§Δ	3.0m	§S	40	40	3.0	100m	.10uØ	20Ø	12mØ	200 †#Ø				5pØ		X20	
65#	BSY28†	300m	380M§	2.0m	§J	15	12	3.0	100m	.05uØ	2.0Ø	10mØ	34 †				3.5p	PEØ	TO18	
66#	BSY29†	300m	380M§	2.0m	§J	15	12	3.0	100m	.05uØ	2.0Ø	10mØ	54 †				3.5p	PEØ	TO18	
67	LDA410	300m	380MΔ§	2.9m	§J	40	35 §	4.0	25m	.10uØ	10Ø	5.0mØ	3.8 Δ				.3pØ	E	TO122	P
68	2N706B†	300m	400M§	2.0m	§J	25	20 §	5.0		10u	1.0Ø	10mØ	40 †				4.5p	ME	TO18	AØ
69	2N707	300m	400M	2.0m	§J	56	28 §	4.0		5.0uØ	1.0Ø	10mØ	12 †				10pØ	DΔ	TO18	A
70	2N743†	300m	400M§	2.0m	§S	20	12	5.0	200m		.35Ø	10mØ	40 †				5pØ	EM	TO18	AØ
71	2N744†	300m	400M§	2.0m	§S	20	12	5.0	200m		.35Ø	10mØ	80 †				5pØ	EM	TO18	AØ
72	2N753†	300m	400M§	2.0m	§J	25	15	5.0		10u	1.0Ø	10mØ	80 †				3.5p	ME	TO18	AØ
73	2N3337†	300m	400M§Δ	1.7m	§J	40	40	4.0		25nØ	10Ø	4.0mØ	30 †Δ				1.6pØ	PL	TO72	G
74	2N3338†	300m	400M§Δ	1.7m	§J	40	40	4.0		25nØ	10Ø	4.0mØ	30 †Δ				1.6pØ	PL	TO72	G
75	2N3339†	300m	400M§Δ	1.7m	§J	40	40	4.0		25nØ	10Ø	4.0mØ	30 †Δ				1.6pØ	PL	TO72	G
76	2N5186†	300m	400M§Δ	1.7m	§S	10	5.0	3.0	300m	5.0uØ	1.0Ø	10mØ	25 †Δ				3pØ		TO52	AØ
77	2N5187†	300m	400M§Δ	1.7m	§S	25	10	5.0	500m	.45uØ	1.0Ø	10mØ	30 †Δ				3.5pØ		TO52	AØ
78#	2SC356†	300m	400M§	2.0m	§J	30	15	5.0	200m	1.0uØ	1.0Ø	10mØ	60 †				4.5p	PE	TO46	AØ
79#	2SC979	300m	400M§		§J	70	50	5.0	100m	1.0uØ	1.0Ø	10mØ	70 †				3.0p	PE	TO18	A
80	BF154	300m	400M§	3.0m	♦J	30	20	4.0		.50uØ	10Ø	10mØ	50 †#				2.0p	DPL	R97	
81#	BFV87†	300m	400M§Δ	588u	§J	40	40	4.5	500m	.40uØ	1.0Ø	10mØ	20 †#Δ				4pØ	PE	u26a	B
82#	BFY19	300m	400M§	2.0m	§J	30	20	3.0	100m	10u	9.0Ø	10mØ	110				4.0p	PLØ	TO18	
83#	BFY79	300m	400M§Δ	1.7m	§J	30	30	4.0		25nØ	10Ø	4.0mØ	30 †Δ				1.6pØ	DPLØ	TO72	G
84#	BSV53†	300m	400M	2.4m	$						1.0Ø	10mØ	40 †Δ				4.0p		u34	
85#	BSV54†	300m	400M	2.4m	$						1.0Ø	10mØ	20 †Δ				4.0p		u34	
86	PET8250	300m	400M§	3.0m	♦J	40	30	5.0	750m	.05u§	5.0Ø	10mØ	65	140u	250	2.0	5p$	PE	R110 a	A
87	S15658	300m	400M§Δ	3.0m	♦J	40	15	4.0		.05uØ	10Ø	15mØ	70 †#				4pØ	DPE	TO106	
88	SE6020†	300m	400M§	5.9m	♦J	60	60	6.5	1	.10uØ	10Ø	1.0mØ	100 †				11p$	DPEΔ	TO105	A
89	SE6021†	300m	400M§	5.9m	♦J	80	80	6.5	1	.10uØ	10Ø	1.0mØ	120 †				11p$	DPEΔ	TO5	A
90♦#	ZTX312†	300m	400M§Δ	3.0m	♦A	30	12	5.0	500m#	200nØ	1.0Ø	10mØ	40 †Δ				4.0pØ	PE†	X59	F
91	2N835†	300m	450M§	2.0m	§	25	20	3.0	200m	.50uØ	1.0Ø	10mØ	40 †				2.8p	ME	TO18	AØ
92#	2SC595†	300m	450M§		§J	30	20	5.0	200m	1.0uØ	1.0Ø	10mØ	80 †				6pØ	PE	TO18	
93	PET8251	300m	450M§	3.0m	♦J	40	30	5.0	750m	.05u§	5.0Ø	10mØ	125	200u	400	2.0	5p$	PE	R110 a	A
94	2N834†	300m	500M§	2.0m	§J	40	30	5.0	200m	.50uØ	1.0Ø	10mØ	40 †				2.8p	ME	TO18	AØ
95	2N4449†	300m	500M§Δ	1.7m	§S		15	4.5	200m	.40u§	.35Ø	10mØ	40 †#Δ				4p$Ø		TO46	A
96	JAN2N4449†	300m	500M§Δ	1.7m	§J	40	15	4.5		30uØ†	1.0Ø	10mØ	40 †Δ				4.0pØ	PE	TO46	AØ
97#	2SC79	300m	500M§	2.0m	§J	15	15 §	3.0	50m	1.0uØ	6.0Ø	1.0m	50				2.3p	ME	TO18	
98#	BFV87A†	300m	500M§Δ	588u	§J	40	40	4.5	500m	.40uØ	1.0Ø	10mØ	40 †#Δ				4pØ	PE	u26a	B
99#	BFV87B†	300m	500M§Δ	588u	§J	40	40	4.5	200m	30uØ	.35Ø	10mØ	40 †#Δ				4pØ	PE	u26a	B
100♦#	ZTX313†	300m	500M§Δ	3.0m	♦A	40	15	5.0	500m#	200nØ	1.0Ø	10mØ	40 †Δ				4.0pØ	PL†	X59	F
101♦#	ZTX314†	300m	500M§Δ	3.0m	♦A	40	15	5.0	500m#	200nØ	1.0Ø	10mØ	40 †Δ				4.0pØ	PL†	X59	F
102	2N4104	300m	540M§Ø	2.0m	§S	60	60	10	50m	.01uØ	5.0Ø	1.0mØ	1.4kØ	60uØ	42kØ	8 Ø	4.5pØ	Ø	TO18	AØ
103#	2SC601†	300m	580M§		§J	40	15	5.0	100m	.10uØ	1.0Ø	10mØ	60 †				4pØ	PE	TO18	
104	2N849	300m	600M§Δ	2.0m	§J	25	15	5.0	50m	10u	1.0Ø	10mØ	40 †#				5pØ	MEΔ	u4	
105	2N850	300m	600M§Δ	2.0m	§J	25	15	5.0	50m	10u	1.0Ø	10mØ	80 †#				5pØ	MEΔ	u4	
106	2N3010†	300m	600M§Δ	1.7m	§J	15	6.0	4.0	50m	10u§	.40Ø	1.0mØ	15 †Δ				3pØ		TO18	AØ
107	2N3423*	300m	600M§Δ	1.7m	§J	30	15	3.0	50m	.01uØ	3.0Ø	3.0mØ	20 †Δ				1.7pØ	*	L2t	
108	2N3424*	300m	600M§Δ	1.7m	§J	30	15	3.0	50m	.01uØ	3.0Ø	3.0mØ	20 †Δ				1.7pØ	*	L2t	
109	2N3544	300m	600M§Δ	2.0m	§S	25	25 Ø	3.0	100m	.10uØ	10Ø	10mØ	25 †Δ				2.5pØ		TO18	AØ
110	BSX44	300m	600M§Δ			15		4.0	200m#			20mØ	30 †Δ					PE	TO18	

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	FT709†	300m	600M§Δ	1.7m	§J						.40Ø	10mØ	30 †Δ				3pØ	PE	TO18	AØ
2	GI3794	300m	600MØ§	3.0m	♦J	40	20	5.0		.50uØ	10Ø	10mØ	600 †Ø#				10pØ		TO18	A
3	MD918*	300m	600M§Δ	1.9m	§J	30	15	5.0	50m	10nØ	5.0Ø	1.0mØ	50 †Δ				3.0p	ANØ	L66a	
4	MD918A*	300m	600M§Δ	1.9m	§J	30	15	5.0	50m	10nØ	5.0Ø	1.0mØ	50 †Δ				3.0p	ANØ	L66a	
5	MD918B*	300m	600M§Δ	1.9m	§J	30	15	5.0	50m	10nØ	5.0Ø	1.0mØ	50 †Δ				3.0p	ANØ	L66a	
6	MM1941	300m	600M§Δ	2.0m	§J	30	30 Ø	3.0	200m	.10uØ	.10Ø	10mØ	50 †				2.5pØ	E	TO18	AØ
7#	ZT709†	300m	600M§Δ	1.7m	§J	15	6.0	4.0		.05uØ	.50Ø	10mØ	55 †				3pØ	PL	TO18	
8#	ZT2475†	300m	600M§Δ	1.7m	§J	15	6.0	4.0		.05uØ	.40Ø	20mØ	50 †				2.4p	PE	R64	
9	2N709†	300m	800M§	1.7m	§J	15	6.0	4.0		.05uØ	.50Ø	10mØ	55 †				3pØ	PL	TO18	AØ
10	2N709A†	300m	800M§	1.7m	§J	15	6.0	4.0		5.0nØ	.50Ø	10mØ	60 †				3.0pØ	PE	TO18	AØ
11	2N2475†	300m	800M§	1.7m	§J	15	6.0	4.0		10u	.40Ø	20mØ	50 †				2.4p	PE	R64	
12	2N2615	300m	800MΔ	1.7m	§J	30	15	3.0		1nØ	1.0Ø	3.0mØ	20 †#Δ				2.8pØ	PLØ	TO18	AØ
13#	BSX27†	300m	800M§	1.7m	§J	15	6.0	4.0		10u§	.40Ø	10mØ	80 †#				2.3p	DPE		
14#	BFX32	300m	850M§Δ	3.1m	$J	35	25	4.0	30m		10Ø	7.0mØ	30 †Δ				1.5p	PE	MM11	C
15	2N851	300m	900M§Δ	2.0m	§J	20	12	5.0	200m	10u	.35Ø	10mØ	40 †				5pØ	EΔ	TO50	C
16	2N852	300m	900M§Δ	2.0m	§J	20	12	5.0	200m	10u	.35Ø	10mØ	80 †				5pØ	EΔ	TO50	C
17	2N2616	300m	900M§Δ	1.7m	§J	30	15	3.0	50m	.01uØ	1.0Ø	3.0mØ	50 †				2.4p	PEØ	TO18	DAØ
18	2N2729	300m	900M§Δ	1.7m	§J	30	15	3.0	50m	.01uØ	1.0Ø	3.0mØ	50 †				2.4p	PEØ	TO46	AØ
19	2N5200§	300m	900M§Δ	1.7m	▼J	20	20	4.5	100m	.01uØ	5.0Ø	.50mØ	45 †Δ				2.5p§		TO46	AØ
20#	BFY78	300m	900M§	1.7m	§J	25	12	3.0	50m	.02uØ	1.0Ø	3.0mØ	50 †				2.4p	DPEØ	TO18	AØ
21	LDA406	300m	900M§	2.9m	§J	30	15	3.0	25m	10nØ	10Ø	3.0mØ	20 †Δ				1.7pØ	PEØ	u34c	P
22	2N2784†	300m	1.0G§	1.7m	§J	15	6.0	4.0		5nØ	.50Ø	10mØ	120 †Ø				3pØ	PE	TO18	AØ
23#	BFW98	300m	1.0G§			36	18	4.0			6.0Ø	50mØ	35 †				2.5p		MT59e	GCØ
24	K2101	300m	1.0G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
25	K2102	300m	1.0G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
26	K2103	300m	1.0G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
27	K2104	300m	1.0G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
28	K2105	300m	1.0G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
29	K2106	300m	1.0G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
30	K2107	300m	1.0G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
31	K2108	300m	1.0G§	1.1m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
32	K2523	300mØ	1.0G§	1.7m	§J	20	10	2.0		.30uØ	1.0Ø	3.0mØ	20 †Δ				1.5pØ		TO72	G
33	K2601	300m	1.0G§	1.1m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				1.8pØ		TO50	
34	K2602	300m	1.0G§	1.1m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				1.8pØ		TO50	
35	K2603	300m	1.0G§	1.1m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				1.8pØ		TO50	
36	K2604	300m	1.0G§	1.1m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				1.8pØ		TO50	
37	K2610	300m	1.0G§	1.7m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO18	
38	K2611	300m	1.0G§	1.7m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO18	
39	K2612	300m	1.0G§	1.7m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO18	
40	K2613	300m	1.0G§	1.7m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO18	
41	K2614	300m	1.0G§	1.7m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO18	
42	2N5201§	300m	1.1G§Δ	1.7m	▼J	20	20	4.5	100m	.01uØ	5.0Ø	.50mØ	65 †Δ				2.5p§		TO46	AØ
43	2N3633†	300m	1.3G§Δ	1.7m	§J	15	6.0	4.0	50m	5.0nØ	.50Ø	10mØ	50 †Δ	b	30 Ø		2.5pØ	PE	TO18	AØ
44▼	2N5762	300m	1.3G§Δ	2.4m	$S	20	15	3.0	40m	500nØ	10Ø	15mØ	30 †Δ				800f§Ø	Ø	X80a	Y
45	K2501	300m	1.3G§	1.7m	§J	25	10	2.0		.10uØ	10Ø	8.0mØ	20 Δ				2pØ		TO18	A
46	K2524	300mØ	1.3G§	1.7m	§J	20	10	2.0		.30uØ	1.0Ø	3.0mØ	20 †Δ				1.5pØ		TO72	G
47	MT1060	300m	1.3G§	2.0m	§J	30	14 Ø	4.0	80m	.05uØ	5.0Ø	5.0mØ	45 †				1p§	PE	TO46	AØ
48	A215	300m	1.4G§		§J	40	25	3.0	150m	10u	5.0	50m	25 †Δ				3.5pØ		TO46	A
49	K2101A	300m	1.4G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
50	K2102A	300m	1.4G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
51	K2103A	300m	1.4G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
52	K2104A	300m	1.4G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
53	K2105A	300m	1.4G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
54	K2106A	300m	1.4G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
55	K2107A	300m	1.4G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
56	K2108A	300m	1.4G§	1.1m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
57	K2601A	300m	1.4G§	1.1m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				1.8pØ		TO50	
58	K2602A	300m	1.4G§	1.1m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				1.8pØ		TO50	
59	K2603A	300m	1.4G§	1.1m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				1.8pØ		TO50	
60	K2604A	300m	1.4G§	1.1m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				1.8pØ		TO50	
61	K2610A	300m	1.4G§	1.7m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO18	
62	K2611A	300m	1.4G§	1.7m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO18	
63	K2612A	300m	1.4G§	1.7m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO18	
64	K2613A	300m	1.4G§	1.7m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO18	
65	K2614A	300m	1.4G§	1.7m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO18	
66	K2525	300mØ	1.5G§	1.7m	§J	20	10	2.0		.30uØ	1.0Ø	3.0mØ	20 †Δ				1.5pØ		TO72	G
67	MT1060A	300m	1.5G§	2.0m	§J	30	14 Ø	4.0	80m	.05uØ	5.0Ø	5.0mØ	75 †				1p§	PE	TO46	AØ
68	MT1062	300m	1.5G§	2.0m	§J	30	14 Ø	4.0	80m	.05uØ	5.0Ø	5.0mØ	75 †				1p§	PE	TO50	FØ
69	K2101B	300m	1.7G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
70	K2102B	300m	1.7G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
71	K2103B	300m	1.7G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
72	K2104B	300m	1.7G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
73	K2105B	300m	1.7G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
74	K2106B	300m	1.7G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
75	K2107B	300m	1.7G§	1.1m	§J	30	10	2.5	30m	.01uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
76	K2108B	300m	1.7G§	1.1m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				1.4pØ	Ø	TO50	
77	K2526	300mØ	1.7G§	1.7m	§J	20	10	2.0		.30uØ	1.0Ø	3.0mØ	20 †Δ				1.5pØ		TO72	G
78	K2601B	300m	1.7G§	1.1m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				1.8pØ		TO50	
79	K2602B	300m	1.7G§	1.1m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				1.8pØ		TO50	
80	K2603B	300m	1.7G§	1.1m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				1.8pØ		TO50	
81	K2604B	300m	1.7G§	1.1m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				1.8pØ		TO50	
82	K2610B	300m	1.7G§	1.7m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO18	
83	K2611B	300m	1.7G§	1.7m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO18	
84	K2612B	300m	1.7G§	1.7m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO18	
85	K2613B	300m	1.7G§	1.7m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO18	
86	K2614B	300m	1.7G§	1.7m	§J	20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO18	
87	2N5088	310m		3.6m	†S	35	30	3.0	50m	.05uØ	5.0Ø	1.0mØ	350 Δ				4p§Ø	Ø	TO92	A
88	2N5089	310m		3.6m	†S	30	25	3.0	50m	.05uØ	5.0Ø	1.0mØ	450 Δ				4p§Ø	Ø	TO92	A
89	MPS2711	310m		2.9m	†J	18		5.0					30 †Δ				4pØ	AN	TO92	
90	MPS2712	310m		2.9m	†J	18		5.0					75 †Δ				4pØ	AN	TO92	
91	MPS2715	310m		2.9m	†J	18		5.0					30 †Δ				3.5pØ	AN	TO92	
92	MPS2716	310m		2.9m	†J	18		5.0					75 †Δ				3.5pØ	AN	TO92	
93	MPS3392	310m		2.9m	†J	25		5.0					300 †Ø				3.5pØ	AN	TO92	
94	MPS3393	310m		2.9m	†J	25		5.0					180 †Ø				3.5pØ	AN	TO92	
95	MPS3394	310m		2.9m	†J	25		5.0					170 †Ø				3.5pØ	AN	TO92	
96	MPS3395	310m		2.9m	†J	25		5.0					150 †Δ				3.5pØ	AN	TO92	
97	MPS3396	310m		2.9m	†J	25		5.0					90 †Δ				3.5pØ	AN	TO92	
98	MPS3397	310m		2.9m	†J	25		5.0					500 †Ø				3.5pØ	AN	TO92	
99	MPS3398	310m		2.9m	†J	25		5.0					800 †Ø				3.5pØ	AN	TO92	
100	MPS3707	310m		2.9m	†J	30		6.0					400 †Ø					ANØ	TO92	
101	MPS3708	310m		2.9m	†J	30		6.0					660 †Ø					ANØ	TO92	
102	MPS3709	310m		2.9m	†J	30		6.0					165 †Ø					ANØ	TO92	
103	MPS3710	310m		2.9m	†J	30		6.0					330 †Ø					ANØ	TO92	
104	MPS3711	310m		2.9m	†J	30		6.0					180 †Δ					ANØ	TO92	
105	MPS6511	310m		2.8m	†J	30	20	3.0	100m	.05uØ	10Ø	10mØ	25 †Δ				2.5pØ	EA	TO92	A
106	MPS6544	310m		2.9m	†J	60		4.0										AN	TO92	
107	MPS6545	310m		2.9m	†J	60		4.0										AN	TO92	
108	MPS6564	310m		2.9m	†J	45		5.0					25 †Δ				4pØ	AN	TO92	
109	MPS6567	310m		2.9m	†J	40		5.0					25 †Δ				.7pØ	AN	TO92	
110	2N5209	310m	30M§Δ	2.8m	†S	50	50	4.5	50m	50nØ	5.0Ø	1.0mØ	150 Δ				4.0p§Ø	Ø	TO92	A

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M A X	E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L A D	C E O D E
1	2N5210	310m	30M§△	2.8m	†S		50	50	4.5	50m	50nØ	5.0Ø	1.0mØ	250 △					Ø	TO92	A	
2	2N5225	310m	50M§△	2.8m	†S		25	25	4.0	500m	.30uØ	10Ø	50mØ	30 △				20p$		TO92	A	
3▼	MPSL01	310m	60M§△	2.8m	†J		140	120	5.0	600m	1.0uØ	10Ø	1.0mØ	30 △				8.0pØ	AN	TO92	A	
4	MPS-A09	310m	80.M§	2.8m	†J		50	50		50m	.10uØ	5.0Ø	.10mØ	100 △†				5pØ	ANØ†	TO92	A	
5	2N5220	310m	100M§△	2.8m	†S		15	15	3.0	500m	.10uØ	10Ø	50mØ	30 △				10p$		TO92	A	
6	2N5550	310m	100M§△	2.8m	†S		160	140	6.0	600m	100nØ	10Ø	1.0mØ	50 △				6.0pØ		TO92	A	
7	2N5551	310m	100M§△	2.8m	†S		180	160	6.0	600m	50nØ	10Ø	1.0mØ	50 △				6.0pØ	Ø	TO92	A	
8	MPS3704	310m	100M§△	2.8m	†J		50	30	5.0	600m	.10uØ	2.0Ø	50mØ	100 †△#				12pØ	AN	TO92	A	
9	MPS3705	310m	100M§△	2.8m	†J		50	30	5.0	600m	.10uØ	2.0Ø	50mØ	50 †△#				12pØ	AN	TO92	A	
10	MPS3706	310m	100M§△	2.8m	†J		40	20	5.0	600m	.10uØ	2.0Ø	50mØ	30 †△#				12pØ	AN	TO92	A	
11	2N5219	310m	150M§△	2.8m	†S		20	15	3.0	100m	.10uØ	10Ø	2.0mØ	35 △				4p$		TO92	A	
12	2N5223	310m	150M§△	2.8m	†S		25	20	3.0	100m	.10uØ	10Ø	2.0mØ	50 △				4p$		TO92	A	
13	MPS6571	310m	175M§	2.8m	†J		20	20	3.0	50m	50n	5.0Ø	100uØ	250 †△				4.5pØ	AN†Ø	X20d	A	
14	2N4400†	310m	200M§△	2.8m	†S		60	40	6.0	600m	.10u#Ø	10Ø	10mØ	20 △	30uØ	7.5kØ	8 Ø	7p$Ø		TO92	A	
15	MPS706†	310m	200M§△	2.8m	†J		25	15 *	3.0		500nØ	1.0Ø	10mØ	20 †#△				6.0pØ	AN†	X20d	A	
16	MPS706A†	310m	200M§△	2.8m	†J		25	15 *	5.0		500nØ	1.0Ø	10mØ	20 †#△				6.0pØ	AN†	X20d	A	
17	MPS3693	310m	200M§△	2.8m	†J		45	45	4.0		.05uØ	10Ø	10mØ	40 †△				3.5pØ	EA	TO92	A	
18	MPS3694	310m	200M§△	2.8m	†J		45	45	4.0		.05uØ	10Ø	10mØ	100 †△				3.5pØ	EA	TO92	A	
19	MPS6565	310m	200M§△	2.9m	†J		60		4.0					40 †△				3.5pØ	ANØ	TO92		
20	MPS6566	310m	200M§△	2.9m	†J		60		4.0					100 †△				3.5pØ	ANØ	TO92		
21▼	MPSA13	310m	200M§	2.8m	†J		30	30	10	300m	100n	5.0Ø	10mØ	5.0k†△				5.0p	Ø	TO92	A	
22▼	MPSA14	310m	200M§	2.8m	†J		30	30	10	300m	100n	5.0Ø	10mØ	10k†△				5.0p	Ø	TO92	A	
23	2N3903†	310m	250M§△	2.8m	†J		60	40	6.0	200m	.05u#	10Ø	1.0mØ	50 △	40uØ	8kØ	5 Ø	4pØ	Ø	TO92	A	
24	2N4123	310m	250M§△	2.8m	†J		40	30	5.0	200m	.05uØ	10Ø	2.0mØ	50 △				4pØ	Ø	TO92	A	
25	2N4401†	310m	250M§△	2.8m	†S		60	40	6.0	600m	.10u#Ø	10Ø		40 △	30uØ	15kØ	8.0 Ø	7p$Ø		TO92	A	
26	2N5224†	310m	250M§△	2.8m	†S		25	12	5.0	100m	.50uØ	1.0Ø	10mØ	40 †△				4p$		TO92	A	
27	CS3903†	310m	250M	2.8m			60	40	6.0	200m	.05u	10Ø	1.0mØ	50	40u	8.0k	5.0	4.0p		R97a		
28	MPS2713†	310m	250M§	2.8m	†J		18	18	5.0	200m	.50u	4.5Ø	2.0mØ	120 Ø		3.0k		2.5p	EA	TO92	A	
29	MPS2714†	310m	250M§	2.8m	†J		18	18	5.0	200m	.50u	4.5Ø	2.0mØ	300 Ø		3.0k		2.5p	EA	TO92	A	
30	MPS6512	310m	250M§	2.8m	†J		40	30	4.0	100m	.05uØ	10Ø	2.0mØ	50 †△				3.5pØ	EA	TO92	A	
31	MPS6513	310m	250M§	2.8m	†J		40	30	4.0	100m	.05uØ	10Ø	2.0mØ	90 †△				3.5pØ	EA	TO92	A	
32	2N3904†	310m	300M§△	2.8m	†J		60	40	6.0	200m	.05u#	10Ø	1.0mØ	100 △	40uØ	10kØ	8 Ø	4pØ	Ø	TO92	A	
33	2N4124	310m	300M§△	2.8m	†J		30	25	5.0	200m	.05uØ	10Ø	2.0mØ	120 △				4pØ	Ø	TO92	A	
34	2N4264†	310m	300M§△	2.8m	†S		30	15	6.0	200m	.1u#Ø	1.0Ø	10mØ	40 †△				4.0pØ		TO92	A	
35	2N4265†	310m	300M§△	2.8m	†S		30	12	6.0	200m	.1u#Ø	1.0Ø	10mØ	100 †△				4pØ		TO92	A	
36	2N4409	310m	300M§Ø	2.9m	†S		80	50	5.0	250m	.01uØ	1.0Ø	10mØ	400 †Ø				12p$		TO92	A	
37	2N4410	310m	300M§Ø	2.9m	†S		120	80	5.0	250m	.01uØ	1.0Ø	10mØ	400 †Ø				12p$		TO92	A	
38	CS3904†	310m	300M§△	2.8m	†J		60	40	6.0	200m	.05u#	10Ø	1.0mØ	100 △	40uØ	10kØ	8 Ø	4pØ	Ø	TO106		
39	CS4409	310m	300M	2.9m			80	50	5.0	250m	.01u	1.0Ø	10mØ	400 †				12p		R97a		
40	CS4410	310m	300M	2.9m			120	80	5.0	250m	.01u	1.0Ø	10mØ	400 †				12p		R97a		
41	MPS2926	310m	300M§	2.9m	†J		18		5.0					470 †Ø				3.5pØ	AN	TO92		
42	MPS6569	310m	300M§△	2.9m	†J		20		3.0									.5p†	AN	TO92		
43	MPS6570	310m	300M§△	2.9m	†J		20		3.0									.5p†	AN	TO92		
44▼	MPSH30	310m	300M§△	2.8m	†J		20	20	3.0		50nØ	5.0Ø	4.0mØ	20 †△				650f$Ø	ANØ	TO92	C	
45▼	MPSH31	310m	300M§△	2.8m	†J		20	20	3.0		50nØ	5.0Ø	4.0mØ	20 †△				650f$Ø	ANØ	TO92	C	
46▼	MPSH37	310m	300M§△	2.8m	†J			40	5.0		500n	10Ø	5.0mØ	25 †△				700ftØ	AN	TO92	C	
47	MPS834†	310m	350M§△	2.8m	†J		40	30 Ø	5.0	200m	.50uØ	1.0Ø	10mØ	25 †△#				4pØ	AN	TO92	A	
48	MPS6540	310m	350M§△	2.8m	†J		30	30	4.0		.10uØ	10Ø	2.0mØ	25 †△				.65p$	EA	TO92	A	
49♦	MPS6568	310m	375M§△	2.8m	†J		20	20	3.0		50nØ	5.0Ø	4.0mØ	20 †△				500f$Ø	ANØ	TO92	A	
50▼	MPS6568A	310m	375M§△	2.8m	†J		20	20	3.0		50nØ	5.0Ø	4.0mØ	20 †△				650f$Ø	ANØ	TO92	A	
51	MPS6514	310m	390M§	2.8m	†J		40	25	4.0	100m	.05uØ	10Ø	2.0mØ	150 †△				3.5pØ	EA	TO92	A	
52	MPS6515	310m	390M§	2.8m	†J		40	25	4.0	100m	.05uØ	10Ø	2.0mØ	250 †△				3.5pØ	EA	TO92	A	
53	MPS6520	310m	390M§	2.8m	†J		40	25	4.0	100m	.05uØ	10Ø	2.0mØ	200 †△				3.5pØ	EAØ	TO92	A	
54	MPS6521	310m	390M§	2.8m	†J		40	25	4.0	100m	.05uØ	10Ø	2.0mØ	300 †△				3.5pØ	EAØ	TO92	A	
55	MPS6530	310m	390M§	2.8m	†J		60	40	5.0	600m	.05uØ	1.0Ø	100mØ	85 †				3.5p	EA	TO92	A	
56	MPS6531	310m	390M§	2.8m	†J		60	40	5.0	600m	.05uØ	1.0Ø	100mØ	150 †				3.5p	EA	TO92	A	
57	MPS6532	310m	390M§	2.8m	†J		50	30	5.0	600m	.10uØ	1.0Ø	100mØ	30 †△				3.5p	EA	TO92	A	
58	2N5222	310m	450M§△	2.8m	†S		20	15	2.0	50m	.10uØ	10Ø	4.0mØ	20 △				1.3p$		TO92	A	
59	MPS2369†	310m	500M§△	2.8m	†J		40	15 *	4.5	500m	.40uØ	1.0Ø	10mØ	40 †#△				4pØ	AN	TO92	A	
60▼	MPM5006	310m	600M§	2.8m	†J		40	40	4.0	100m	50nØ	10Ø	4.0mØ	30 †△				1.1p	Ø	TO92	A	
61♦	MPS918	310m	600M§△	2.8m	†J		30	15	3.0		10nØ	10Ø	8.0mØ	20 △				1.7pØ	ANØ	TO92	A	
62♦	MPS3563	310m	600M§△	2.8m	†J		30	12	2.0		50nØ	10Ø	8.0mØ	20 †△#				1.7pØ	ANØ	TO92	A	
63	MPS6546	310m	600M§△	2.9m	†J		35		3.0									.35p†	AN	TO92		
64	MPS6547	310m	600M§△	2.9m	†J		35		3.0									.45p†	AN	TO92		
65▼	MPSH20	310m	620M	2.8m	†J		40	30	4.0	100m	50nØ	10Ø	4.0mØ	25 †△				500f$	E	TO92	C	
66▼	MPSH10	310m	650M§△	2.8m	†J		30	25	3.0		100nØ	10Ø	4.0mØ	60 †△				700f$Ø	E	TO92	C	
67▼	MPSH11	310m	650M§△	2.8m	†J		30	25	3.0		100nØ	10Ø	4.0mØ	60 †△				700f$Ø	E	TO92	C	
68	MPS6507	310m	700M§△	2.8m	†J		30	20	3.0	100m	.05uØ	10Ø	2.0mØ	25 †△				2.5pØ	EA	TO92	A	
69	MPS6542	310m	700M§△	2.9m	†J		30		3.0									1.5p	AN	TO92		
70	MPS6543	310m	750M§△	2.9m	†J		35		3.0									1.0p	AN	TO92		
71	2N5027†	320m	250M§△	3.4m	♦J			30	5.0	350m	.25u§	10Ø	150mØ	50 †#△				8p$Ø		TO98	B	
72	2N5028†	320m	250M§△	3.4m	♦J			30	5.0	350m	.25u§	10Ø	150mØ	100 †#△				8p$Ø		TO98	B	
73	2N3605A†	320m	300M§△	3.3m	♦J		40	15	5.0	200m	25nØ	1.0Ø	10mØ	30 †△				6.0p$Ø		TO98	B	
74	2N3606A†	320m	300M§△	3.3m	♦J		40	15	5.0	200m	25nØ	1.0Ø	10mØ	30 †△				6.0p$Ø		TO98	B	
75	2N5232	330m		3.3m	$S		70	50	5.0	100m	.03uØ	5.0Ø	2.0mØ	250 △				4p$Ø		TO98	B	
76	2N5232A	330m		3.3m	♦J		70	50	5.0	100m	.03uØ	5.0Ø	2.0mØ	250 △				4p$Ø	PEØ			
77	2N5233	330m		3.3m	$S		80	60	6.0	100m	.03uØ	10Ø	10mØ	100 △				4p$Ø		TO98	B	
78	2N5234	330m		3.3m	$S		80	60	6.0	100m	.03uØ	10Ø	10mØ	250 △				4p$Ø		TO98	B	
79	2N5235	330m		3.3m	$S		80	60	6.0	100m	.03uØ	10Ø	10mØ	400 △				4p$Ø		TO98	B	
80	2N5249	330m		3.3m	$S		70	50	5.0	100m	.03uØ	5.0Ø	2.0mØ	400 △				4p$Ø		TO98	B	
81	2N5249A	330m		3.3m	♦J		70	50	5.0	100m	.03uØ	5.0Ø	2.0mØ	400 △				4p$Ø	PEØ			
82	2N5309	330m		3.3m	$S		70	50	5.0	100m	.01uØ	5.0Ø	.01mØ	66 △				4p$Ø		TO98	B	
83	2N5310	330m		3.3m	$S		70	50	5.0	100m	.01uØ	5.0Ø	.01mØ	110 △				4p$Ø		TO98	B	
84	2N5311	330m		3.3m	$S		70	50	5.0	100m	.01uØ	5.0Ø	.01mØ	250 △				4p$Ø		TO98	B	
85#	BF121	330m	350M§	3.3m	♦J			30	4.0	25m		10Ø	4.0mØ	30 †△				220ft	PL†	X65a	A	
86#	BF127	330m	350M§	3.3m	♦J			30	4.0	25m		10Ø	4.0mØ	30 †△				220ft	PL†	X65a	A	
87#	BF125	330m	450M§	3.3m	♦J			30	4.0	30m		10Ø	7.0mØ	35 †△				300ft	PE†	X65a	A	
88#	BF123	330m	550M§	3.3m	♦J			30	4.0	30m		10Ø	7.0mØ	35 †△				300ft	PE†	X65a	A	
89#	2C415*	340m	100M§	2.3m	§J		45		6.0	30m	.01uØ	5.0Ø	.10mØ	250 †				6pØ	DPLØ	L2b		
90	2N5456†	340m	450M§△	1.9m	§J		25	25	4.5	300m	50n§	1.0Ø	100m	30 †△#				6p$Ø		TO52	AØ	
91#	2SC727	350m	20.M§	2.3m	§J		100	100	3.0	100m	1.0uØ	4.0Ø	10mØ	90 †*	12u	1.2k	1.0	9.0p	D	TO18		
92#	2SC728†	350m	20.M§	2.3m	§J		200	200	6.0	100m	1.0uØ	4.0Ø	10mØ	90 †*				9.0p	D	TO18		
93▼#	BFS36	350m	30M§△	2.3m	§J		45	45 Ø	5.0	500m#	10n	5.0Ø	10uØ	100 †△				8.0pØ	Ø	u53	F	
94▼#	BFS36A	350m	30M§△	2.3m	§J		30	30 Ø	5.0	500m#	100n	5.0Ø	100uØ	100 †△				8.0pØ	Ø	u53	F	
95	2N3246	350m	60M	2.0m	§A		60	45	10	50m	1.0nØ	5.0Ø	1.0uØ	150 †△	1.0uØb	28	6.0 Ø	5.0pØ	PLØ	TO18	AØ	
96▼#	BFS42	350m	60M§△	2.3m	§J		60	30 Ø	5.0	1.0 #	100nØ	10Ø	10mØ	25 △†				25pØ		u53	F	
97▼#	BFS43	350m	60M§△	2.3m	§J		60	60 Ø	5.0	1.0 #	100nØ	10Ø	10mØ	35 △†				25pØ		u53	F	
98	2N2509	350m	80.M	2.0m	§J		125	80	7.0		10u	5.0	10m	40 †△				6.0p	PLØ	TO18	AØ	
99	2N2510	350m	80.M	2.0m	§J		100	65	7.0		10u	5.0	10m	150 †△				6.0p	PLØ	TO18	AØ	
100	2N2511	350m	80.M	2.0m	§J		80	50	7.0		10u	5.0	10m	240 †△				6.0p	PLØ	TO18	AØ	
101#	2SC283	350m	80M§△				50	20	5.0	100m	.10u	8.0Ø	10mØ	170				10pØ		TO1		
102#	2SC317H†	350m	100M§△	2.3m	§J		70	50	5.0	100m	.10uØ	6.0Ø	10mØ	80 †*					DPM	TO1	A	
103#	ZT20†	350m	110M§	2.7m	§J		20	20	6.0	50m	500n	6.0Ø	1.0mØ	30	2.5u	1.3k	1.1	5.0p		TO5	Ø	
104#	ZT21†	350m	110M§	2.7m	§J		20	20	6.0	50m	500n	6.0Ø	1.0mØ	30	2.5u	1.3k	1.1	5.0p		TO5	Ø	
105#	ZT22†	350m	110M§	2.7m	§J		45	45	6.0	50m	500n	6.0Ø	1.0mØ	50	2.5u	1.6k	1.1	5.0p		TO5	Ø	
106#	ZT23†	350m	110M§	2.7m	§J		45	45	6.0	50m	500n	6.0Ø	1.0mØ	50	2.5u	1.6k	1.1	5.0p		TO5	Ø	
107#	ZT24†	350m	110M§	2.7m	§J		45	45	6.0	50m	500n	6.0Ø	1.0 Ø	65	2.5u	2.0k	1.1	5.0p		TO5	Ø	
108#	ZT60†	350m	120M§△	2.7m	§J		25	25	4.0	500m	500n	6.0Ø	1.0 Ø	55				8.0pØ	PEØ	TO5	Ø	
109#	ZT61†	350m	120M§△	2.7m	§J		45	35	4.0	500m	500n	6.0Ø	1.0 Ø	55				8.0pØ	PEØ	TO5	Ø	
110#	ZT62†	350m	120M§△	2.7m	§J		45	35	4.0	500m	500n	6.0Ø	1.0 Ø	90				8.0pØ	PEØ	TO5	Ø	

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M A X E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	ZT63†	350m	120M§Δ	2.0m	§J	60	45	5.0	500m	50n	6.0Ø	1.0 Ø	55				8.0pØ	PEØ	TO5	Ø
2#	ZT64†	350m	120M§Δ	2.0m	§J	60	45	5.0	500m	50n	6.0Ø	1.0 Ø	90				8.0pØ	PEØ	TO5	Ø
3#	ZT66†	350m	120M§Δ	2.0m	§J	100	80	5.0	500m	50n	6.0Ø	1.0 Ø	55				8.0pØ	PEØ	TO5	Ø
4	2N2353	350m	130M§	2.0m	§J	45	25	5.0	1.0	100nØ	10Ø	150mØ	20 †Δ#	230nb	6.0	1.1	20pØ	PEΔ	TO46	A
5	2N2353A	350m	130M§	2.0m	§J	45	25	5.0	1.0	100nØ	10Ø	150mØ	20 †Δ#	230nb	6.0	1.1	20pØ	PEΔ	TO46	A
6▼#	BFS38	350m	150M§Δ	2.3m	§J	45	35 Ø	5.0	500m#	50n	6.0Ø	100uØ	20 Δ†				5.0pØ		u53	F
7▼#	BFS38A	350m	150M§Δ	2.3m	§J	25	25 Ø	5.0	500m#	500n	6.0Ø	10mØ	50 Δ†				5.0pØ		u53	F
8▼#	BFS39	350m	150M§Δ	2.3m	§J	60	45 Ø	5.0	500m#	50n	6.0Ø	10mØ	40 Δ†				5.0pØ		u53	F
9#	BFX50†	350m	150M§Δ	2.0m	§J	80	35	6.0	1.0	100nØ	10	150mØ	30 †Δ				12p	PE	TO18	AØ
10#	BFX52†	350m	150M§Δ	2.0m	§J	40	20	6.0	1.0	100nØ	10	150mØ	60 †Δ				12p	PE	TO18	AØ
11	2N2317†	350m	160M	2.3m	§J	75		7.0		.01uØ	10Ø	150mØ	80 †				18p	PL	TO46	AØ
12#	2SC283H	350m	180M§Δ			50	20	5.0	100m	.10u	6.0Ø	10mØ	9.0				10pØ		TO1	
13#	2SC282	350m	200M			30	20	5.0	100m	1.0u	6.0	10mØ	60 †Δ				10p	PM	TO1	
14#	2SC284	350m	200M			70	35	5.0	100m	1.0u	6.0	10mØ	35 †Δ				10p	PM	TO1	
15	2N3641	350m	250M§Δ	3.5m	♦J	60	30	5.0	500m	50n§	10Ø	150mØ	40 †Δ#				8.0pØ		R97	A
16	2N3642	350m	250M§Δ	3.5m	♦J	60	45	5.0	500m	50n§	10Ø	150mØ	40 †Δ#				8.0pØ		R97	A
17	2N3643	350m	250M§Δ	3.5m	♦J	60	30	5.0	500m	50n§	10Ø	150mØ	100 †Δ#				8.0pØ		R97	A
18	EN2219	350m	250M§Δ	3.6m	♦J	60	30 *Ø	5.0	800m	.05uØ	10Ø	.10mØ	35 †Δ				8pØ	PEΔ	TO105	A
19	2N4072	350m	300M§Δ	2.0m	§S	40	20	4.0	100m	.10uØ	2.0Ø	25mØ	10 †Δ				4pØ		TO18	AØ
20	2N4955*	350m	300M§Ø	3.4m	♦J	30	25	5.0	30m	.01uØ	5.0Ø	1.0mØ	1.0kØ	40uØ	30kØ	8 Ø	6p$	Ø	L2s	
21	2N4956*	350m	300M§Ø	3.4m	♦J	30	25	5.0	30m	.01uØ	5.0Ø	1.0mØ	1.0kØ	40uØ	30kØ	8 Ø	6p$	Ø	L2s	
22▼#	BSV35A†	350m	300M§Δ	2.3m	§J	25	20 §	5.0	500m#	500nØ	1.0Ø	10mØ	20 Δ†				6.0pØ		u53	F
23#	2SC131†	350m	350M§	2.3m	§J	40	30 §	5.0	300m	.05u	1.0Ø	10mØ	60				4.0p	PE	TO18	
24#	2SC132†	350m	350M§	2.3m	§J	20	20 §	5.0	300m	.05u	1.0Ø	10mØ	60				4.0p	PE	TO18	
25#	2SC133†	350m	350M§	2.3m	§J	20	20 §	5.0	300m	.05u	1.0Ø	10mØ	60				4.0p	PE	TO18	
26#	2SC134†	350m	350M§	2.3m	§J	40	30 §	5.0	300m	.02uØ	1.0Ø	10mØ	60				4.0p	PE	TO18	
27#	2SC135†	350m	350M§	2.3m	§J	20	20 §	5.0	300m	.02uØ	1.0Ø	10mØ	60				4.0p	PE	TO18	
28#	2SC136†	350m	350M§	2.3m	§J	80	60 §	5.0	300m	.02uØ	1.0Ø	10mØ	60				4.0p	PE	TO18	
29#	2SC137†	350m	350M§	2.3m	§J	25	25 §	5.0	300m	.05uØ	1.0Ø	10mØ	50 †				4.0p	PEΔ	TO18	
30#	2SC203	350m	350M§	2.3m	§J	40		5.0	200m	.02uØ	6.0Ø	1.0m	60				4.0p	PE	TO18	
31#	2SC204	350m	350M§	2.3m	§J	20		3.0	200m	.10uØ	6.0Ø	1.0m	60				4.0p	PE	TO18	
32#	2SC205	350m	350M§	2.3m	§J	80		5.0	200m	.02uØ	6.0Ø	1.0m	60				4.0p	PE	TO18	
33#	2SC230	350m	350M§	2.3m	§J	80		3.0	200m	.02uØ	6.0Ø	1.0m	60				4.0p	PE	TO18	
34#	2SC237	350m	450M§	2.3m	§J	25			300m	.05uØ	6.0Ø	1.0m	80				5.0p	PE	TO18	
35#	2SC239	350m	450M§	2.3m	§J	35			300m	.05uØ	6.0Ø	1.0m	80				5.0p	PE	TO18	
36▼#	BSV35†	350m	500M§Δ	2.3m	§J	40	15 Ø	5.0	500m#	400nØ	1.0Ø	10mØ	40 Δ†				4.0pØ		u53	F
37▼#	BFS46	350m	600M§Δ	2.3m	§J	30	15 Ø	3.0	500m#	10nØ	1.0Ø	3.0mØ	20 Δ†				1.7pØ	Ø	u53	F
38▼#	BFS46A	350m	600M§Δ	2.3m	§J	30	15 Ø	3.0	500m#	10nØ	1.0Ø	3.0mØ	20 Δ†				1.7pØ	Ø	u53	F
39▼#	BSV36†	350m	600M§Δ	2.3m	§J	15	6.0 Ø	4.0	500m#	50nØ	.40Ø	20mØ	30 Δ†				3.0pØ		u53	F
40#	BF311	350m	750M§	3.0m	§J	35	25	4.0	40m	50nØ	10	15mØ	40 †Δ				.3p$	PE	X76	C
41	K2503	350m	1.6G§	2.0m	§J	25	10	2.0		.10uØ	10Ø	8.0mØ	20 Δ				2pØ		TO50	C
42	K2509	350m	1.6G§	2.0m	§J	30	10	2.0		.10uØ	10Ø	8.0mØ	20 Δ				2pØ		TO50	C
43	2N2483	360m		2.1m	§J	60	60	6.0	50m	.01uØ	5.0Ø	1.0mØ	80 Δ	30uØ	13kØ	8 Ø	6pØ	Ø	TO18	AØ
44	2N2484	360m		2.1m	§J	60	60	6.0	50m	.01uØ	5.0Ø	1.0mØ	150 Δ	40uØ	24kØ	8 Ø	6pØ	Ø	TO18	AØ
45	2N2831	360m		2.1m	§J	40	12	3.0	200m	.03uØ	10Ø	10mØ	40 Δ				5pØ		TO18	A
46	2N3414	360m		2.7m	♦J	25	25	5.0	500m	100n	4.5Ø	2.0 Ø	150 †					PE	R67	B
47	2N3415	360m		2.7m	♦J	25	25	5.0	500m	100n	4.5Ø	2.0 Ø	300 †					PE	R67	B
48	2N3416	360m		2.7m	♦J	50	50	5.0	500m	100nØ	4.5Ø	2.0 Ø	150 †					PE	R67	B
49	2N3417	360m		2.7m	♦J	50	50	5.0	500m	100nØ	4.5Ø	2.0 Ø	300 †					PE	R67	B
50	2N3707	360m		2.9m	$S	30	30	6.0	30m	.10uØ	5.0Ø	.10mØ	100 Δ					†Ø	TO92	B
51	2N3708	360m		2.9m	$S	30	30	6.0	30m	.10uØ	5.0Ø	1.0mØ	45 Δ					†Ø	TO92	B
52	2N3709	360m		2.9m	$S	30	30	6.0	30m	.10uØ	5.0Ø	1.0mØ	45 Δ					†Ø	TO92	B
53	2N3710	360m		2.9m	$S	30	30	6.0	30m	.10uØ	5.0Ø	1.0mØ	90 Δ					†Ø	TO92	B
54	2N3711	360m		2.9m	$S	30	30	6.0	30m	.10uØ	5.0Ø	1.0mØ	180 Δ					†Ø	TO92	B
55	2N4269	360m		2.0m	§S	200	140	15	30m	1.0uØ	10Ø	10mØ	200 †Ø				5pØ		TO18	AØ
56	2N4424	360m		2.9m	$J	40	40	5.0	500m	.10uØ	4.5Ø	2.0mØ	180 Δ						TO98	B
57	2N5418	360m		3.6m	$S	25	25	4.0	500m	100n	10Ø	2.0mØ	25 Δ				8.0p$Ø		TO98	B
58	2N5419	360m		3.6m	$S	25	25	4.0	500m	100n	10Ø	2.0mØ	70 Δ				8.0p$Ø		TO98	B
59	2N5420	360m		3.6m	$S	25	25	4.0	500m	100n	10Ø	2.0mØ	150 Δ				8.0p$Ø		TO98	B
60▼#	BC280A	360m		2.0m	§J	45	40	6.0	100m	5.0nΔ	5.0Ø	1.0mØ	100 †Δ	9.0m	5.6k	2.1	2.8p	DPL	TO18	
61▼#	BC280B	360m		2.0m	§J	45	40	6.0	100m	5.0nΔ	5.0Ø	1.0mØ	200 †Δ	16m	9.0k	3.5	2.8p	DPL	TO18	
62▼#	BC280C	360m		2.0m	§J	45	40	6.0	100m	5.0nΔ	5.0Ø	1.0mØ	200 †Δ	16m	9.0k	3.5	2.8p	DPL	TO18	
63#	BF237	360m		2.9m	$S	45	30	4.0	30m	.10u	10Ø	1.0mØ	30 Δ					PL	X55	
64	BF238	360m		2.9m	$S	45	30	4.0	30m	.10uØ	10Ø	1.0mØ	70 Δ					PE	X55	
65	CI4424	360m		2.8m	J	40	40	5.0	500m	100n	4.5Ø	2.0mØ	180					DPL†	R127	D
66	CS4424	360m		2.9m		40	40	5.0	500m	.10u	4.5Ø	2.0mØ	180						R97a	
67	LDS207Ø	360m		2.9m	$J	20	10	5.0	30m	.10u§	5.0Ø	1.0mØ	75 †Δ					PEΔ	u34c	P
68	MM2483	360m	12M§Δ	2.1m	§J	60	60	6.0	50m	.01uØ	5.0Ø	1.0mØ	80 Δ	50uØ	24kØ	25 Ø	6pØ	EAØ	TO18	A
69	2N2484A	360m	15M§Δ	2.0m	§J	60	60	6.0	50m	.01uØ	5.0Ø	1.0mØ	150 Δ	40uØ	24kØ	8.0 Ø	6pØ	Ø	TO18	AØ
70	MM2484	360m	15M§Δ	2.1m	§J	60	60	6.0	50m	.01uØ	5.0Ø	1.0mØ	150 Δ	50uØ	24kØ	25 Ø	6pØ	EAØ	TO18	A
71	A130	360m	20M§Δ	2.0m	§J	90	80 §	4.0		5.0u	5.0Ø	10mØ	20 †Δ				20pØ	PL	TO5	A
72	A132	360m	30.M§	2.0m	§J	90		4.0				10mØ	20 †Δ						TO5	
73	PET8000	360m	40M§Δ	3.6m	♦J	50	35	8.0	100m	.01uØ	10Ø	1.0mØ	160	40u	900	10	2.5pØ	DPL	R110	A
74	PET8001	360m	40M§Δ	3.6m	♦J	50	35	8.0	100m	.01uØ	10Ø	1.0mØ	260	40u	900	10	2.5pØ	DPL	R110	A
75	PET8002	360m	40M§Δ	3.6m	♦J	50	35	8.0	100m	.01uØ	10Ø	1.0mØ	400	40u	900	10	2.5pØ	DPL	R110	A
76	PET8003	360m	40M§Δ	3.6m	♦J	50	35	8.0	100m	.01uØ	10Ø	1.0mØ	260	40u	900	10	2.5pØ	DPL*	R110	A
77	PET8004	360m	40M§Δ	3.6m	♦J	50	35	8.0	100m	.01uØ	10Ø	1.0mØ	400	40u	900	10	2.5pØ	DPL*	R110	A
78	2N3037†	360m	50M§Δ	2.4m	§S	120	70	7.0	500m	.01uØ	10Ø	10mØ	30 Δ	100uØ	700 Ø		15pØ		TO50	A
79	2N3038†	360m	50M§Δ	2.4m	§S	100	60	7.0	500m	.01uØ	10Ø	10mØ	60 Δ	200uØ	1.5kØ		15pØ		TO50	A
80#	BSX25	360m	50.M§	2.1m	§J	40	25	5.0		.05uØ	10Ø	5.0mØ	30 †Δ				25pØ	PL	TO18	
81#	BSY93	360m	50M§Δ	2.0m	§J	60	40	5.0		20nØ	2.0Ø	10mØ	50 †Δ				25pØ	PLΔ	TO18	Ø
82	TZ81	360m	50M§	2.8m	$J	60	30	5.0	500m	10nØ	5.0Ø	1.0mØ	350	90nb	26		5.0p	PLØ	TO98	B
83	TZ82	360m	50M§	2.8m	$J	60	30	5.0	500m	10nØ	5.0Ø	1.0mØ	250	90nb	26		5.0p	PLØ	TO98	B
84#	BFY76	360m	55M§	2.0m	§J	45	45	6.0	50m	20nØ	5.0Ø	1.0mØ	300	11u	8.0k	3.0	3.5p	DPLØ	TO18	AØ
85	JAN2N2484	360m	60M§	2.0m	§J	60	60	6.0	50m	10uØ	5.0Ø	1.0mØ	250 Δ	40uØ	24kØ	8.0 Ø	5.0pØ	Ø	TO18	A
86	2N3077	360m	60M§Δ	2.0m	§J	80	60	7.0	50m	.01uØ	5.0Ø	.01mØ	80 †Δ				6pØ	PLØ	TO18	AØ
87	2N3078	360m	60M§Δ	2.0m	§J	80	60	7.0	50m	.01uØ	5.0Ø	.01mØ	25 †Δ				6pØ	PL	TO18	AØ
88	2N3117	360m	60M§Δ	2.0m	§	60	60	6.0	50m	.01uØ	5.0Ø	1.0mØ	400 Δ	40uØ	24kØ	8 Ø	4.5pØ	Ø	TO18	AØ
89#	BFY77	360m	60.M§	2.1m	§J	45	45	6.0	50m	.02uØ	5.0Ø	1.0mØ	450	15u	15k	4.3	3.5p	DPLØ	TO18	AØ
90▼	MD1T2484	360m	60M§		$A	60	60	6.0	50m	10nØ	5.0Ø	500uØ	2.0 Δ				6.0pØ		TO122	P
91	PET4001	360m	60M§Δ	3.6m	♦J	30	25	8.0	100m	.01uØ	10Ø	1.0mØ	160	40u	900	10	3pØ	PL†	R110	A
92	PET4002	360m	60M§Δ	3.6m	♦J	30	25	8.0	100m	.01uØ	10Ø	1.0mØ	260	40u	900	10	3pØ	PL†	R110	A
93	PET4003	360m	60M§Δ	3.6m	♦J	30	25	8.0	100m	.01uØ	10Ø	1.0mØ	400	40u	900	10	3pØ	PL†	R110	A
94	ST71000	360m	60M§Δ	2.3m	§J	60	30	15	50m	2.0nØ	5.0Ø	10uØ	400 †Δ		23k		4.0pØ	PEØ	TO18	
95#	BFX92A	360m	69.M§	2.0m	§J	60	60	6.0	50m	.01uØ	5.0Ø	1.0mØ	280	11u	7.5k	3.0	3.5p	DPLØ	TO18	AØ
96#	BFX93A	360m	78M§	2.0m	§J	60	60	6.0	50m	10nØ	5.0Ø	1.0mØ	400	15u	15k	4.2	3.5p	DPLØ	TO18	AØ
97▼#	BC285	360m	80M§	2.0m	§J	120	120	5.0	100m	100n	30Ø	5.0mØ	30 †Δ	5.0m	420	750m	4.0p	DPL	TO18	
98▼	GET929	360m	90M§Δ	3.6m	♦J	70	50	5.0	100m	10n	5.0Ø	10uØ	60Mt Δ				1.0p$Ø	PE†	TO18	A
99▼	GET930	360m	90M§Δ	3.6m	♦J	70	50	5.0	100m	10n	5.0Ø	10uØ	100Mt Δ				1.0p$Ø	PE†	TO18	A
100	2N3704	360m	100M§	2.9m	$S	50	30	5.0	800m	.10uØ	2.0Ø	50mØ	300 †#Ø				12pØ		TO92	B
101	2N3705	360m	100M§	2.9m	$S	50	30	5.0	800m	.10uØ	2.0Ø	50mØ	150 †#Ø				12pØ		TO92	B
102	2N3706	360m	100M§	2.9m	$S	40	20	5.0	800m	.10uØ	2.0Ø	50mØ	600 †#Ø				12pØ		TO92	B
103	2N5449	360m	100M§Δ	2.9m	$S	50	30	5.0	800m	.10uØ	2.0Ø	50mØ	100 †#Δ				12p$		X55	A
104	2N5450	360m	100M§Δ	2.9m	$S	50	30	5.0	800m	.10uØ	2.0Ø	50mØ	50 †#Δ				12p$		X55	A
105	2N5451	360m	100M§Δ	2.9m	$S	40	20	5.0	800m	.10uØ	2.0Ø	50mØ	30 †#Δ				12p$		X55	A
106	A306	360m	100M§Δ	2.0m	§J	25	20	5.0		10nØ	5.0Ø	1.0mØ	100 Δ	1.0uØb	32 Ø	100mØ	6.0pØ	PLØ	TO18	A
107	A307	360m	100M§Δ	2.0m	§J	25	20	5.0		10nØ	5.0Ø	1.0mØ	100 Δ	1.0uØb	32 Ø	100mØ	6.0pØ	PLØ	TO18	A
108	ME213	360m	100M§Δ	2.0m	§J	45	25	5.0	200m	.10uØ	5.0Ø	1.0mØ	185				6pØ	PE	TO18	A
109	ME213A	360m	100M§Δ	2.0m	§J	45	25	5.0		.10uØ	5.0Ø	1.0mØ	70 Δ				6pØ	PL	TO18	A
110	ME216	360m	100M§Δ	2.0m	§J	20	10	3.0	200m	.50uØ	1.0Ø	10mØ	45 †Δ				8pØ	PE	TO18	A

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M A X	E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O D E
1	ME217	360m	100M§Δ	2.0m	§J		20	10	3.0	200m	.50uØ	1.0Ø	10mØ	100 †Δ				8pØ	PE	TO18		A
2	ME900	360m	100M§Δ	2.0m	§J		40	20	5.0		10nØ	5.0Ø	1.0mØ	100 Δ	1.0uØb	32 Ø	100mØ	6.0pØ	PLØ	TO18		A
3	ME901	360m	100M§Δ	2.0m	§J		40	20	5.0		10nØ	5.0Ø	1.0mØ	100 Δ	1.0uØb	32 Ø	100mØ	6.0pØ	PLØ	TO18		A
4	PET3704	360m	100M§Δ	3.6m	♦J		50	30	5.0	800m	.10uØ	2.0Ø	50mØ	5.0 Δ				12pØ	PE†	R110		A
5	PET3705	360m	100M§Δ	3.6m	♦J		50	30	5.0	800m	.10uØ	2.0Ø	50mØ	5.0 Δ				12pØ	PE†	R110		A
6	PET3706	360m	100M§Δ	3.6m	♦J		40	20	5.0	800m	.10uØ	2.0Ø	50mØ	5.0 Δ				12pØ	PE†	R110		A
7#	C442	360m	130M§	2.0m	§J		40	30	5.0		.10uØ	10Ø	1.0mØ	115 †#				14p	PL	TO18		AØ
8#	BCW34	360m	150M	2.7m	§		60	45	5.0	600m	10n	5.0Ø	100mØ	100 Δ	5.0u	40k	10	6.0p	PE	TO18		
9#	ME6003	360m	150M§Δ	2.9m	§J		25		4.0		.10uØ	5.0Ø	50mØ	30 †Δ				12pØ	PEΔ†	TO106		A
10	PET1075	360m	150M§	3.6m	♦J		90	70	6.0	150m	1.0uØ†	1.0Ø	1.0mØ	60 †Δ				5pØ	DPL	R110		A
11	PET1075A	360m	150M§	3.6m	♦J		140	90	6.0	150m	1.0uØ†	1.0Ø	1.0mØ	60 †Δ				5pØ	DPL	R110		A
12	2N919†	360m	200M§Δ	2.1m	§J		25	15	5.0	220m	10u	1.0Ø	10mØ	20 †Δ				7.0pØ		TO18		WØ
13	2N920†	360m	200M§Δ	2.1m	§J		25	15	5.0	220m	10u	1.0Ø	10mØ	40 †Δ				7.0pØ		TO18		WØ
14	2N947	360m	200M§Δ	2.9m	§J		20	15 §	3.0	100m	1.0uØ	1.0Ø	10mØ	30 †#Δ				8pØ	Δ	TO18		AØ
15	2N3826	360m	200M§Δ	2.9m	§S		60	45	4.0	30m	.10uØ	10Ø	10mØ	40 †#Δ				4pØ	†	TO92		B
16	2N3827	360m	200M§Δ	2.9m	§S		60	45	4.0	30m	.10uØ	10Ø	10mØ	100 †#Δ				4pØ	†	TO92		B
17	2N3973†	360m	200M§Δ	2.7m	§S		60	30	5.0	400m	10u	1.0Ø	150mØ	30 †Δ				7.0pØ		R67		B
18	2N3974†	360m	200M§Δ	2.7m	§S		60	30	5.0	400m	10u	1.0Ø	150mØ	50 †Δ				7.0pØ		R67		B
19	2N3975†	360m	200M§Δ	2.7m	§S		60	30	5.0	400m	10u	1.0Ø	150mØ	30 †Δ				7.0pØ		R67		B
20	2N3976†	360m	200M§Δ	2.7m	§S		60	30	5.0	400m	10u	1.0Ø	150mØ	50 †Δ				7.0pØ		R67		B
21	2N4994	360m	200M§Δ	2.9m	§S		60	45	4.0	30m	.10uØ	10Ø	10mØ	40 †#Δ				4pØ	†	X55		A
22	2N4995	360m	200M§Δ	2.9m	§S		60	45	4.0	30m	.10uØ	10Ø	10mØ	100 †#Δ				4pØ	†	X55		A
23♦#	AT490	360m	200M§	2.1m	§J		30	30	5.0	100m	100nØ	10Ø	10mØ	50 †Δ				3.5pØ	PE	TO18		AØ
24▼#	AT491	360m	200MΔ§	2.1m	§J		45	45	5.0	100m	100n	10Ø	10mØ	50 Δ				3.5pØ	PE	TO18		AØ
25▼#	AT492	360m	200MΔ§	2.1m	§J		30	30	5.0	100m	100n	10Ø	10mØ	100 Δ				3.5pØ	PE	TO18		AØ
26▼#	AT493	360m	200MΔ§	2.1m	§J		45	45	5.0	100m	100n	10Ø	10mØ	100 Δ				3.5pØ	PE	TO18		AØ
27▼#	AT494	360m	200MΔ§	2.1m	§J		30	30	5.0	100m	100n	10Ø	10mØ	50 Δ				3.5pØ	PE	TO18		AØ
28▼#	AT495	360m	200MΔ§	2.1m	§J		45	45	5.0	100m	100n	10Ø	10mØ	50 Δ				3.5pØ	PE	TO18		AØ
29#	BFV88†	360m	200M§Δ	500u	§J		60	40	5.0	800m		10Ø	10mØ	75 †#				11pØ	PE	u26a		B
30	BFY26	360m	200M§Δ	2.1m	§J		60	40	6.0	200m	.01u	9.0Ø	10mØ	60 †				5.5pØ	PLØ	TO18		
31#	BSX79†	360m	200M§Δ	1.3m	§A							1.0Ø	50mØ	50 Δ				5.0p	NPE	TO18		
32	LDA404†	360m	200M§Δ	2.9m	§J		60	30	5.0	300m	10nØ	10Ø	150mØ	40 †#Δ				8.0pØ	PE	u34		P
33	LDA405†	360m	200M§Δ	2.9m	§J		60	30	5.0	300m	10nØ	10Ø	150mØ	100 †#Δ				8.0pØ	PE	u34		P
34#	LDA450	360m	200M§Δ	2.9m	§J		45	30	5.0		10nØ	10Ø	1.0mØ	35 †Δ				8.0pØ	PEΔ	u34		P
35#	LDA451	360m	200M§Δ	2.9m	§J		45	30	5.0		10nØ	10Ø	1.0mØ	75 †Δ				8.0pØ	PEΔ	u34		P
36#	LDA453	360m	200M§Δ	2.9m	§J		45	30	5.0	300m	10nØ	10Ø	150mØ	100 †#Δ				8.0pØ	PE	u34		P
37	LDS210†	360m	200M§Δ	2.9m	§J		50	30	5.0	500m	.50uØ	1.0Ø	150mØ	30 †Δ#				10pØ	PL	u34c		P
38#	ME6001	360m	200M§Δ	2.9m	§J		40	30 Ø	5.0	500m	.05u§Ø	1.0Ø	50mØ	30 †Δ				10pØ	PEΔ†	TO106		A
39#	ME6002	360m	200M§Δ	2.9m	§J		40	30 Ø	5.0	500m	.05u§Ø	1.0Ø	50mØ	75 †Δ				10pØ	PEΔ†	TO106		A
40	PET1001	360m	200M§Δ	3.6m	♦J		45	45	4.0	150m	.50uØ	10Ø	5.0mØ	20 Δ	35u	900	2.0	4pØ	DPL	R110		A
41	PET1002	360m	200M§Δ	3.6m	♦J		45	45	4.0	150m	.50uØ	10Ø	5.0mØ	70 Δ	35u	900	2.0	4pØ	DPL	R110		A
42	PET2001	360m	200M§Δ	3.6m	♦J		35	20	4.0	150m	.05uØ	10Ø	5.0mØ	20 Δ	35u	900	2.0	5pØ	DPL	R110		A
43	PET2002	360m	200M§Δ	3.6m	♦J		35	20	4.0	150m	.05uØ	10Ø	5.0mØ	70 Δ	35u	900	2.0	5pØ	DPL	R110		A
44	PET8200	360m	200M§Δ	3.7m	♦J		30	25	5.0	100m	.05u	10Ø	2.0mØ	50 Δ				5pØ	PE	R110		A
45	PET8201	360m	200M§Δ	3.7m	♦J		40	30	5.0	100m	.05uØ	10Ø	2.0mØ	50 Δ				5pØ	PE	R110		A
46	PET8202	360m	200M§Δ	3.7m	♦J		30	25	5.0	100m	.05u	10Ø	2.0mØ	150 Δ				5pØ	PE	R110		A
47	PET8203	360m	200M§Δ	3.7m	♦J		40	30	5.0	100m	.05uØ	10Ø	2.0mØ	150 Δ				5pØ	PE	R110		A
48	PET8204	360m	200M§Δ	3.7m	♦J		30	25	5.0	100m	.05u	10Ø	2.0mØ	250 Δ				5pØ	PE	R110		A
49	TIS44†	360m	200M§Δ	2.9m	§J		25	20 §	3.0	50m	.50uØ	1.0Ø	10mØ	20 †#Δ				6pØ	PE	TO92		
50▼	TIS106	360m	200MΔ§	2.8m	§S		80	65	6.0	200m	50nØ	5.0Ø	1.0mØ	235	9.0u	6.0k	1.5	4.0pØ$	PE†	X55		A
51▼	TIS107	360m	200MΔ§	2.8m	§S		60	40	6.0	200m	50nØ	5.0Ø	1.0mØ	105	7.5u	3.0k	800m	4.0pØ$	PE†	X55		A
52	2N915	360m	250M§Δ	2.0m	§J		70	50	5.0		.01uØ	5.0Ø	5.0mØ	50 Δ	125uØ	2kØ		3.5pØ		TO18		AØ
53	2N2656	360m	250M§Δ	2.0m	§J		25	15	5.0	200m	.50uØ	10Ø	.10mØ	40 Δ†				5.0p	PE	TO18		AØ
54	2N2845†	360m	250M§Δ	2.0m	§J		60	30 *	5.0		.20u§	10Ø	150mØ	30 †Δ#				8pØ		TO18		AØ
55	2N2847†	360m	250M§Δ	2.0m	§J		60	20 *	5.0		.20u§	10Ø	150mØ	40 †Δ#				8pØ		TO18		AØ
56	2N3301†	360m	250M§Δ	2.0m	§J		60	30	5.0	500m	.01u§	10Ø	110mØ	25 Δ				8pØ		TO18		AØ
57	2N3302†	360m	250M§Δ	2.0m	§J		60	30	5.0	500m	.01u§	10Ø	110mØ	50 Δ				8pØ		TO18		AØ
58	2N3946†	360m	250M§Δ	2.0m	§J		60	40	6.0	200m	.01u#Ø	10Ø	1.0mØ	50 Δ	30uØ	6kØ	10 Ø	4pØ	EAØ	TO18		AØ
59	2N4450†	360m	250M§Δ	2.0m	§J		60	30	5.0	500m	10uØ	10Ø	1.0mØ	50 †Δ				8p$Ø		TO46		AØ
60	2N4951†	360m	250M§Δ	2.9m	§S		60	30	5.0	500m	.05uØ	10Ø	150mØ	60 †#Δ				8p$Ø		TO98		B
61	2N4952†	360m	250M§Δ	2.9m	§S		60	30	5.0	500m	.05uØ	10Ø	150mØ	100 †#Δ				8p$Ø		TO98		B
62	2N4953†	360m	250M§Δ	2.9m	§S		60	30	5.0	500m	.05uØ	10Ø	150mØ	200 †#Δ				8p$Ø		TO98		B
63	2N4954†	360m	250M§Δ	2.9m	§S		40	30	5.0	500m	.05uØ	10Ø	150mØ	60 †#Δ				8p$Ø		TO98		B
64	2N5368†	360m	250M§Δ	2.9m	§J		60	30	5.0	500m	50nØ	10Ø	1.0mØ	20 †Δ				8p$Ø		X93		A
65	2N5369†	360m	250M§Δ	2.9m	§J		60	30	5.0	500m	50nØ	10Ø	1.0mØ	50 †Δ				8p$Ø		X93		A
66	2N5370†	360m	250M§Δ	2.9m	§J		60	30	5.0	500m	50nØ	10Ø	1.0mØ	75 †Δ				8p$Ø		X93		A
67	2N5371†	360m	250M§Δ	2.9m	§J		40	30	5.0	500m	50nØ	10Ø	1.0mØ	20 †Δ				8p$Ø		X93		A
68	2N5380	360m	250M§					40				1.0Ø	10mØ	50 †Δ				4p$		X55		A
69♦#	AT420	360m	250M§Δ	2.1m	§J		50	30	5.0	500m	200nØ	10Ø	150mØ	30 †Δ				8.0pØ	PE	TO18		AØ
70▼#	AT421	360m	250M§Δ	2.1m	§J		50	30	5.0	500m	200n	10Ø	150mØ	100 Δ				8.0pØ	PE	TO18		AØ
71▼#	AT422	360m	250M§Δ	2.1m	§J		50	45	5.0	500m	200n	10Ø	150mØ	30 Δ				8.0pØ	PE	TO18		AØ
72▼#	AT423	360m	250M§Δ	2.1m	§J		50	45	5.0	500m	200n	10Ø	150mØ	100 Δ				8.0pØ	PE	TO18		AØ
73▼#	AT424	360m	250M§Δ	2.1m	§J		50	30	5.0	500m	200n	10Ø	150mØ	30 Δ				8.0pØ	PE	TO18		AØ
74▼#	AT425	360m	250MΔ§	2.1m	§J		50	45	5.0	500m	200n	10Ø	150mØ	30 Δ				8.0pØ	PE	TO18		AØ
75#	BFV85†	360m	250M§Δ	417u	§J		60	30	5.0	800m	.01uØ	10Ø	1.0mØ	25 †Δ				8pØ	PE	u26a		B
76#	BFV85A†	360m	250M§Δ	417u	§J		75	40	6.0	800m	.01uØ	10Ø	1.0mØ	50 Δ	35uØ	8.0kØ	8 Ø	8pØ	PEØ	u26a		B
77#	BFV85B†	360m	250M§Δ	417u	§J		60	30	5.0	800m	.01uØ	10Ø	1.0mØ	50 †Δ				8pØ	PE	u26a		B
78#	BFV88A†	360m	250M§Δ	500u	§J		60	40	5.0	800m	.25uØ	10Ø	10mØ	30 †Δ				8pØ	PE	u26a		B
79#	BFV88B†	360m	250M§Δ	500u	§J		60	40	5.0	800m	.25uØ	10Ø	10mØ	50 †Δ				8pØ	PE	u26a		B
80#	BFV88C†	360m	250M§Δ	500u	§J		60	30	5.0		200uØ	10Ø	150mØ	30 †#Δ				8pØ	PE	u26a		B
81#	BFY27	360m	250M§Δ	2.0m	§J		70	50	5.0		.01uØ	5.0Ø	10mØ	40 †#Δ				3.5pØ	PL	TO18		
82#	BSW41†	360m	250M§Δ	2.1m	§J		40	25	5.0	300m	.50uØ	10Ø	10mØ	30 †#Δ				8pØ	PE	TO18		AØ
83	GET2221	360m	250M	3.6m	♦J		60	30	5.0	400m	10nØ	1.0Ø	150mØ	20 †Δ				8p$Ø	PEΔ	TO18		
84	GET2222	360m	250M	3.6m	♦J		60	30	5.0	400m	10nØ	1.0Ø	150mØ	50 †Δ				8p$Ø	PEΔ	TO18		
85	LDA400	360m	250M§	2.9m	§J		35	35	5.0	30m	10nØ	5.0Ø	10uØ	40 †Δ				6.0pØ	PEØ	u34		P
86	LDA400MP*	360m	250M§	2.9m	§J		35	35	5.0	30m	10nØ	5.0Ø	10uØ	40 †Δ				6.0pØ	Ø	u34		P
87	LDA401	360m	250M§	2.9m	§J		35	35	5.0	30m	10nØ	5.0Ø	10uØ	100 †Δ				6.0pØ	PEØ	u34		P
88	LDA401MP*	360m	250M§	2.9m	§J		35	35	5.0	30m	10nØ	5.0Ø	10uØ	100 †Δ				6.0pØ	Ø	u34		P
89	LDA402	360m	250M§	2.9m	§J		35	35	5.0	30m	100n	5.0Ø	1.0mØ	100 †Δ				6.0pØ	PE	u34		P
90	LDA403	360m	250M§	2.9m	§J		35	35	5.0	30m	100n	5.0Ø	1.0mØ	270 †Δ				6.0pØ	PE	u34		P
91#	ME6101†	360m	250M§Δ	2.8m	§J		70	50	6.0	600m	500mØ	10Ø	150mØ	70 †Δ#				8.0pØ	PE	R110		A
92#	ME6102†	360m	250M§Δ	2.8m	§J		60	40	6.0	600m	500mØ	10Ø	150mØ	100 †Δ#				8.0pØ	PE	R110		A
93▼	MM3903†	360m	250M§Δ	2.0m	§J		60	40	6.0	200m	50n#	10Ø	1.0mØ	50 Δ	40uØ	8.0kØ	5.0 Ø	5.0pØ	ANØ	TO52		A
94#	PET3903	360m	250M§Δ	3.5m	♦J		60	40	6.0	200m	500m#	1.0Ø	10mØ	50 †Δ				4.0p	PE	R110		A
95#	PET4123	360m	250M§Δ	3.5m	♦J		40	30	5.0	200m	500mØ	1.0Ø	2.0mØ	50 †Δ				4.0p	PE	R110		A
96	TIS60	360m	250M§	2.9m	§J		40	25	5.0	400m	.10uØ	2.0Ø	50mØ	160 †*					PE	TO92		
97	JAN2N708†	360m	300M§Δ	2.0m	§S		40	15	5.0		25nØ	1.0Ø	10mØ	40 †Δ#				6.0pØ		TO18		AØ
98	2N708A	360m	300M§Δ	2.1m	§J		50	20	5.0		.01uØ	1.0Ø	10mØ	40 †Δ				6pØ		TO18		A
99	2N784A†	360m	300M§Δ	2.0m	▼J		40	20 §	5.0	200m	100u	1.0Ø	10mØ	88 †				3.5pØ		TO18		AØ
100	JAN2N914†	360m	300M§Δ	2.0m	§S		40	15	5.0		25nØ	1.0Ø	10mØ	30 †Δ#				6.0pØ		TO18		A
101	2N916	360m	300M§Δ	2.0m	§J		45	25	5.0		.01uØ	5.0Ø	5.0mØ	50 Δ	125uØ	2kØ		6pØ		TO18		AØ
102	JAN2N916	360m	300M§Δ	2.0m	§S		45	25	5.0	50m	10nØ	5.0Ø	1.0mØ	40 Δ	75uØ	6.0kØ		6.0pØ	Ø	TO18		AØ
103	2N2242	360m	300M§	2.0m			40	15	5.0		.10u	1.0Ø	10m	80 †				6.0p	PE	TO18		AØ
104	2N2318	360m	300M§	2.0m			30		5.0		1.0u	.40Ø	20m	40 †				5.0p		TO18		
105	2N2481†	360m	300M§Δ	2.1m	§J		40	15	5.0			1.0Ø	10mØ	40 †#Δ		60 Ø		5pØ	DEΔ	TO18		AØ
106	JAN2N2481†	360m	300M§Δ	2.0m	§J		40	15	5.0		50nØ	1.0Ø	10mØ	40 †Δ#				5.0pØ		TO18		AØ
107	2N3210†	360m	300M§Δ	2.0m	▼S		40	15	5.0	500m	10nØ	1.0Ø	10mØ	30 †Δ#				6.0pØ		TO18		AØ
108	2N3947†	360m	300M§Δ	2.0m	§J		60	40	6.0	200m	.01u#Ø	10Ø	1.0mØ	100 Δ	50uØ	12kØ	20 Ø	4pØ	Ø	TO18		A
109	2N4013†	360m	300M§Δ	2.0m	§J		50	30	6.0	500m	1.7uØ	1.0Ø	100mØ	150 †Ø				12pØ		TO18		AØ
110	2N4014†	360m	300M§Δ	2.0m	§J		80	50	6.0	500m	1.7uØ	1.0Ø	100mØ	150 †Ø				10pØ		TO18		AØ

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC-TURE	DWG. No.	L C E O A D D E
1	2N5144§	360m	300M§Δ	2.0m	§J	50	30	6.0	500m	1.7uØ	1.0Ø	10mØ	30 †#Δ				12p$☑	Δ	TO18	AØ
2	2N5376	360m	300M§Δ	2.8m	$J	60	30	5.0	500m	10nØ	5.0Ø	1.0mØ	120 Δ	200n☑b	32 ☑		8.0p$☑	Ø	X93	A
3	2N5377	360m	300M§Δ	2.8m	$J	60	30	5.0	500m	10nØ	5.0Ø	1.0mØ	100 Δ	200n☑b	32 ☑		8.0p$☑	Ø	X93	A
4	2N5381	360m	300M§				40				1.0Ø	10mØ	100 †Δ				4p$		X55	A
5#	2SC55	360m	300M§	2.4m	§J	25	25 §	3.0	100m	.50uØ	6.0Ø	1.0m	50				4.0p	PL	TO18	
6#	2SC321H†	360m	300M§Δ	2.3m	§J	40	15	5.0	200m	.25uØ	1.0Ø	10mØ	30 †Δ				6p☑	PE	TO18	A
7♦#	AT370	360m	300MΔ§	2.1m	§J	30	30	4.0	100m	100nØ	10Ø	10mØ	20 †Δ					PE	TO18	AØ
8#	BF224	360m	300M§Δ	2.9m	$S	45	30	4.0		.10uØ	10Ø	7.0mØ	85 †					PE	X55	C
9#	BFV85C†	360m	300M§Δ	417u	§J	75	40	6.0	800m	.01uØ	10Ø	1.0mØ	30 Δ	15u☑	3.5k☑	5 ☑	8p☑	PE	u26a	B
10#	BSY19†	360m	300M§Δ	2.1m	§J	40	15	5.0	200m	.02uØ	1.0Ø	10mØ	30 †#Δ				6p☑	PL	TO18	
11#	BSY21†	360m	300M§Δ	2.1m	§J	40	30 Ø	5.0	500m	.02uØ	1.0Ø	10mØ	30 †#Δ				6p☑	PE	TO18	
12	GET706	360m	300M§Δ	3.6m	♦J	25	15	3.0	200m	25nØ	1.0Ø	10mØ	20 †Δ#				6p$☑	PEΔ	TO18	
13	GET708†	360m	300M§Δ	3.6m	♦J	40	15	5.0	200m	25nØ	1.0Ø	10mØ	30 †Δ#				6p$☑	PEΔ	TO18	
14	GET914†	360m	300M§Δ	3.6m	♦J	40	15	5.0	200m	25nØ	1.0Ø	10mØ	30 †Δ#				6p$☑	PEΔ	TO18	
15▼	MM3904†	360m	300M§Δ	2.0m	§J	60	40	6.0	200m	50n#	10Ø	1.0mØ	100 Δ	40u☑	10k☑	8.0 ☑	5.0p☑	ANØ	TO52	A
16#	NKT13329†	360m	300M§Δ	2.0m	§J	30	15	5.0	500m	20nØ	10Ø	1.0mØ	40 †				5.0p		TO18	AØ
17#	NKT13429†	360m	300M§Δ	2.0m	§J	30	15	5.0	500m	20nØ	10Ø	1.0mØ	80 †				5.0p		TO18	AØ
18#	PET3904	360m	300M§Δ	3.5m	♦J	60	40	6.0	200m	50m#	1.0Ø	10mØ	100 †Δ				4.0p	PE	R110	A
19#	PET4124	360m	300M§Δ	3.5m	♦J	30	25	5.0	200m	50mØ	1.0Ø	2.0mØ	120 †Δ				4.0p	PE	R110	A
20	PET9021†	360m	300M§Δ	3.6m	♦J	40	15	5.0	500m	.05uØ	1.0Ø	10mØ	30 †Δ				6p☑	PE	R110	A
21	PET9022†	360m	300M§Δ	3.6m	♦J	25	12	5.0	500m	.05uØ	1.0Ø	10mØ	30 †Δ				6p☑	PE	R110	A
22	TIS45†	360m	300M§Δ	2.9m	$J	40	15	5.0	200m	.05uØ	1.0Ø	.50mØ	15 †Δ				6p☑	PE	TO92	
23	TIS46†	360m	300M§Δ	2.9m	$J	40	15	5.0	200m	.05uØ	2.0Ø	200mØ	12 †#Δ				6p☑	PE	TO92	
24#	ZT708	360m	300M§	2.0m	▼J	30		5.0		25nØ	1.0	10m	120				6.0p	PL	TO18	
25	2N706C†	360m	320MΔ	2.0m	§J	40	15	5.0	50m	1.0uØ	1.0Ø	10mØ	20 Δ				5p☑	ND	TO18	AØ
26	2N913	360m	350M		§J	25		5.0		.05u	1.0Ø	10mØ	75 †				6.0p	PLE	TO18	
27	2N2501†	360m	350M§Δ	2.0m	§J	40		6.0			1.0Ø	10mØ	150 †☑				2.8p	PE	TO18	A
28	2N3009†	360m	350M§Δ	2.0m	§J	40	15	4.0	200m	.50u§	.40Ø	30mØ	30 †#Δ				5p☑		TO52	AØ
29	2N3013†	360m	350M§Δ	2.0m	§J	40	15	5.0	200m	.30u§	.40Ø	30mØ	30 †#Δ				5p☑		TO52	AØ
30	JAN2N3013†	360m	350M§Δ	2.0m	§J	40	20	5.0	300m	40uØ†	.40Ø	30mØ	35 †Δ#				5.0p☑		TO52	AØ
31	2N3014†	360m	350M§Δ	2.0m	§J	40	20	5.0	200m	.30u§	.40Ø	30mØ	30 †#Δ				5p☑		TO52	AØ
32	2N3211	360m	350M§Δ	2.1m	§J	40	15	6.0	500m		1.0Ø	10mØ	50 †Δ				4p☑		TO18	AØ
33	2N3510†	360m	350M§Δ	2.0m	§S	40	10	6.0	500m	25n#Ø	10Ø	15mØ	25 †Δ	100u☑	4.5k☑	25 ☑	4p☑		TO52	AØ
34#	2SC172A	360m	350M§	2.0m	§J	40	20 §	5.0	50m	25nØ	6.0Ø	10m	60				7.0p☑	PL	TO18	
35#	BSX88A†	360m	350M§	2.0m	§J	40	20	5.5		.30uØ	1.0Ø	10mØ	50 †#				3.0p	DPE	TO18	AØ
36	GET2369†	360m	350M§Δ	3.6m	♦J	40	15	5.0	200m	10u	1.0Ø	10mØ	40 †Δ				4.5p$	PEΔ	TO18	
37	GET3013†	360m	350M§Δ	3.6m	♦J	40	15	5.0	200m	.1u§Ø	.40Ø	30mØ	30 †Δ				4.5p$	PEΔ	TO18	
38	GET3014†	360m	350M§Δ	3.6m	♦J	40	20	5.0	200m	.1u§Ø	.40Ø	30mØ	30 †Δ				4.5p$	PEΔ	TO18	
39	GET3646†	360m	350M§Δ	3.6m	♦J	40	15	5.0	200m	.1u§Ø	.40Ø	30mØ	30 †Δ				4.5p$	PEΔ	TO18	
40	TIS52	360m	350M§Δ	2.9m	$J	40	20	5.0	200m	.5u§Ø	1.0Ø	300mØ	25 †#Δ				5p☑	PE	TO92	
41	TIS55	360m	350M§Δ	2.9m	$J	40	15	5.0	200m	.5u§Ø	1.0Ø	300mØ	15 †#Δ				5p☑	PE	TO92	
42#	BFY74	360m	360M§	2.1m	§J	60	45	5.0		.01uØ	5.0Ø	5.0mØ	90	20u	800		3.0p	DPL	TO18	AØ
43#	BFY75	360m	360M§	2.1m	§J	60	45	5.0		.01uØ	5.0Ø	5.0mØ	130	30u	1.0k		3.0p	DPL	TO18	AØ
44#	BSX87†	360m	370M§	2.0m	§J	40	15	5.0		25nØ	1.0Ø	10mØ	55 †#				4.5p	DPE	TO18	AØ
45▼#	BF291A	360m	380M§	2.0m	§J	50	40	5.0	100m	10nØ	10Ø	10mØ	60 †Δ				3.5p	DPE	TO18	
46▼#	BF291B	360m	380M§	2.0m	§J	50	40	5.0	100m	10nØ	10Ø	10mØ	100 †Δ				3.5p	DPE	TO18	
47	2N921†	360m	400M§	63u	§J	50	20	5.0	200m	10uØ	10Ø	10mØ	4.0				4.0p	ME	TO18	AØ
48	2N922	360m	400M	63u	§J	50	20	5.0	200m	10uØ	10Ø	10mØ	4.0				4.0p	ME	TO18	AØ
49	2N3011†	360m	400M§Δ	2.0m	§J	30	12	5.0	200m	.40u§	.35Ø	10mØ	30 †#Δ				4p☑	PE	TO18	AØ
50	2N4419†	360m	400M§Δ	2.9m	$S	30	12	4.5	200m	.40uØ	1.0Ø	10mØ	30 †#Δ				4p$☑	†	X55	A
51#	2SC67†	360m	400M§		§J	40	40 Ø	5.0	200m	.10u	1.0Ø	10mØ	80 †					PE	TO18	
52#	2SC68†	360m	400M§		§J	40	15	5.0	200m	.10u	1.0Ø	10mØ	100 †				3.5p	PE	TO18	
53#	BF225	360m	400M§Δ	2.9m	$S	50	40	4.0		.10uØ	10Ø	4.0mØ	75 †					PE	X55	C
54#	BFW68†	360m	400M§	2.0m	§J	50	40	5.0		.01uØ	5.0Ø	5.0mØ	50 Δ	125u☑	2k☑	5 ☑	3.0p	DPE	TO18	AØ
55#	BSX88†	360m	400M§	2.0m	§J	40	15	5.0		25nØ	1.0Ø	10mØ	45 †#				4.0p	DPE	TO18	AØ
56	PET6001	360m	400M§	3.6m	♦J	40	30	5.0	750m	.05u§	5.0Ø	10mØ	65	140u	250	2.0	5p$	PE	R110	A
57	PET9001†	360m	400M§Δ	3.6m	♦J	40	15	4.5	300m	.50uØ	1.0Ø	10mØ	40 †Δ				4p☑	PE	R110	A
58	PET9001A†	360m	400M§Δ	3.6m	♦J	40	15	4.5	300m	.50uØ	1.0Ø	10mØ	40 †Δ				4p☑	PE	R110	A
59	PET9002†	360m	400M§Δ	3.6m	♦J	30	12	4.5	300m	.50uØ	1.0Ø	10mØ	30 †Δ				4p☑	PE	R110	A
60	PET9002A†	360m	400M§Δ	3.6m	♦J	30	12	4.5	300m	.50uØ	1.0Ø	10mØ	30 †Δ				4p☑	PE	R110	A
61	TIS47†	360m	400M§Δ	2.9m	$J	40	15	4.5	200m	.40uØ	2.0Ø	100mØ	10 †#Δ				4p☑	PE	TO92	
62	TIS51†	360m	400M§Δ	2.9m	$J	30	12	5.0	200m	.40u§Ø	1.0Ø	100mØ	12 †#Δ				4p☑	PE	TO92	
63	TIS94	360m	400M§Δ	2.9m	$J	60	40	6.0	200m	10u	5.0Ø	.10mØ	440	11u	115k	30	4p$☑	PE†	TO92	B
64	TIS95	360m	400M§Δ	2.9m	$J	80	60	6.0	200m	10u	5.0Ø	1.0mØ	240	6.0u	6.4k	1.5	4p$☑	PE†	TO92	B
65	TIS96	360m	400M§Δ	2.9m	$J	80	65	6.0	200m	10u	5.0Ø	10mØ	130	50u	500	.90	4p$☑	PE†	TO92	B
66	TIS97	360m	400M§Δ	2.9m	$J	60	40	6.0	200m	10u	5.0Ø	.10mØ	440	11u	115k	30	4p$☑	PE†	X55	A
67	TIS98	360m	400M§Δ	2.9m	$J	80	60	6.0	200m	10u	5.0Ø	1.0mØ	240	6.0u	6.4k	1.5	4p$☑	PE†	X55	A
68	TIS99	360m	400M§Δ	2.9m	$J	80	65	6.0	200m	10u	5.0Ø	10mØ	130	50u	500	.90	4p$☑	PE†	X55	A
69#	ZT2368†	360m	400M§Δ		§	40		4.5			10Ø	10mØ	20 †Δ					PL	TO18	
70#	ZT2369†	360m	400M§Δ		§	40		4.5			10Ø	10mØ	40 †Δ					PL	TO18	
71#	ZT2369A†	360m	400M§Δ		§	40		4.5			10Ø	10mØ	40 †Δ					PL	TO18	
72#	2SC300	360m	420M§	2.0m	§J	25	15	5.0	100m	.50uØ	10Ø	.10mØ	50 †#				3.5p	PE	TO18	AØ
73#	2SC301	360m	420M§	2.0m	§J	25	15	5.0	100m	.01uØ	10Ø	.10mØ	50 †#				3.5p	PE	TO18	AØ
74#	2SC302	360m	420M§	2.0m	§J	50	20	5.0	100m	.01uØ	10Ø	.10mØ	50 †#				3.5p	PE	TO18	AØ
75	2N3511†	360m	450M§Δ	2.0m	§S	40	15	6.0	500m	25n#Ø	1.0Ø	150mØ	30 †Δ	100u☑	4.5k☑	25 ☑	4p☑		TO52	AØ
76	PET6002	360m	450M§	3.6m	♦J	40	30	5.0	750m	.05u§	5.0Ø	10mØ	125	200u	400	2.0	5p$	PE	R110	A
77	PT3760	360m	460M§Δ	2.0m	§J	60	30	4.0	100m	.01uØ	1.0Ø	10mØ	50 †Δ				5p☑	PL	TO18	
78	2N708†	360m	480MΔ	2.0m	§S	40	15	5.0		25nØ	1.0Ø	10mØ	30 †Δ#				6.0p☑	PL	TO18	AØ
79	2N914†	360m	480MΔ	2.0m	§J	40	15	5.0		25nØ	1.0Ø	10mØ	55 †#				4.5p		R64	Ø
80	2N914/46	360m	480MΔ	2.0m	§J	40	15	5.0		25nØ	1.0Ø	10mØ	30 †				6.0p	PE	TO46	
81	2N743A†	360m	500M§Δ	2.0m	§J	40	15	5.0		1.0u	.35Ø	10mØ	20 †Δ				3p☑	PE	TO18	A
82	2N744A†	360m	500M§Δ	2.0m	§J	40	15	5.0		1.0u	.35Ø	10mØ	40 †Δ				3p☑	PE	TO18	A
83	2N834A	360m	500M§Δ	2.0m	§J	40	30 Ø	5.0	200m	.50uØ	1.0Ø	10mØ	25 †Δ				4p☑		TO18	AØ
84	2N915A	360m	500M§Δ	2.1m	§J	70	50	5.0		2nØ	5.0Ø	5.0mØ	50 Δ	125u☑	2k☑		3p☑	Ø	TO18	AØ
85	2N916A	360m	500M§Δ	2.1m	§J	60	30	5.0		2nØ	5.0Ø	5.0mØ	50 Δ	125u☑	2k☑		3p☑	Ø	TO18	AØ
86	2N916B	360m	500M§Δ	2.1m	§J	60	30	5.0		2nØ	5.0Ø	5.0mØ	50 Δ	125u☑	2k☑		3p☑	Ø	TO18	AØ
87	2N2369A†	360m	500M§Δ	2.0m	§J	40	15	4.5	200m	.40u§Ø	.35Ø	10mØ	40 †#Δ				4p☑		TO18	AØ
88	JAN2N2369A†	360m	500M§Δ	2.0m	§J	40	15	4.5		30uØ†	1.0Ø	10mØ	40 †Δ				4.0p		TO18	AØ
89	2N2710†	360m	500M§Δ	2.0m	§J	40	20	5.0	500m	.03uØ	1.0Ø	10mØ	40 †Δ				4p☑	PE	TO18	AØ
90	2N3227†	360m	500M§Δ	2.0m	§J	40	20	6.0	200m	.20uØ	1.0Ø	10mØ	100 †Δ#				4p☑		TO18	AØ
91	2N4137†	360m	500M§Δ	2.0m	§J	40	40 Ø	4.5	200m	30uØ†	.35Ø	10mØ	40 †#				4p$☑	DPE	TO18	AØ
92	2N4418†	360m	500M§Δ	2.9m	$S	40	15	4.5	200m	.40uØ	1.0Ø	10mØ	40 †#Δ				4p$☑	†	X55	A
93	2N5272†	360m	500M§Δ	2.1m	§S	40	20	5.0	200m	.20uØ	1.0Ø	10mØ	100 †Δ#				4p$☑		TO18	AØ
94#	BFX43	360m	500M§	2.0m	§J	30	15	4.0	125m	100nØ	1.0Ø	10mØ	20 †Δ					PE	TO18	Ø
95#	BFX44	360m	500M§	2.0m	§J	40	15	4.0	125m	100nØ	1.0Ø	10mØ	40 †Δ					PE	TO18	Ø
96#	BSX19†	360m	500M§	2.0m	§J	40	15	4.5	500m#	1.0u§	1.0Ø	10mØ	60 †☑				4.0p$	PE	TO18	Ø
97	FT1315†	360m	500M§Δ	2.0m	§J	30	8.0	4.5	200m	.4u§Ø	.50Ø	50mØ	40 †#Δ				4p☑	DPE	TO18	AØ
98	LDS200	360m	500M§Δ	2.9m	$J	30	15	4.5		.50uØ	1.0Ø	10mØ	20 †Δ				4p☑	PEΔ	u34c	P
99	LDS201	360m	500M§Δ	2.9m	$J	30	15	4.5		.50uØ	1.0Ø	10mØ	40 †Δ				4p☑	PEΔ	u34c	P
100▼	MD1T2369†	360m	500M§		§A	40	15	4.5	200m	400nØ	10Ø	10mØ	5.0 Δ				4.0p☑		TO122	P
101	TIS48†	360m	500M§Δ	2.9m	$J	40	15	4.5	200m	.40uØ	2.0Ø	100mØ	20 †#Δ				4p☑	PE	TO92	
102	TIS49†	360m	500M§Δ	2.9m	$J	40	15	4.5	200m	3uτØ	1.0Ø	100mØ	20 †#Δ				4p☑	PE	TO92	
103#	BSX26†	360m	550M§	2.0m	§J	40	15	4.0		500nØ	.40Ø	30mØ	60 †#				3.3p	DPE		
104#	BSX92†	360m	550M§	2.0m	§J						1.0Ø	10mØ	20 Δ#				4p☑	PE	TO18	
105	2N2651†	360m	600M§	2.0m	§J	40	30 Ø	5.0	500m	10u	1.0Ø	10mØ	25 †Δ				4.0p	PL	TO18	A
106	2N3862†	360m	600M§Δ	2.0m	§A	50	20	4.5	200m	.05uØ	1.0Ø	10mØ	50 †#Δ				4p☑		TO72	G
107	2N5081	360m	600M§Δ	2.1m	§S	70	50	5.0		.01uØ	5.0Ø	1.0mØ	100 Δ				3p$☑	Ø	TO18	AØ
108	2N5082	360m	600M§Δ	2.1m	§S	60	30	5.0		.01uØ	5.0Ø	1.0mØ	100 Δ				3p$☑	Ø	TO18	AØ
109	2N5399§	360m	600M§Δ	2.4m	§S	25	15	2.0	100m	.01uØ	1.0Ø	1.0mØ	30 Δ				3p$	Δ	TO46	AØ
110	JAN2N5399§	360m	600M§Δ	2.3m	§J	25	15	2.0	100m	10nØ	1.0Ø	1.0mØ	30 †Δ				3.0p$	Δ	TO46	AØ

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	MEAS MAX	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CONFIG.
1#	BSX20†	360m	600M§	2.0m	§J	40	15	4.5	500m#	1.0u§	1.0Ø	10mØ	120 †☑				4.0p$	PE	TO18	Ø
2#	BSX39†	360m	600M§	2.0m	§J	45	20	5.0		100n§	.40Ø	30mØ	60 †#				4.0p	DPE	TO18	Ø
3#	BSX87A†	360m	600M§	2.0m	§J	40	15	5.0		.30uØ	1.0Ø	10mØ	55 †#				2.5p	DPE	TO18	AØ
4	LDS205	360m	600M§Δ	2.9m	§J	15	6.0	4.0	100m	.50uØ	1.0Ø	10mØ	20 †Δ				3p☑	PEΔ	u34c	P
5	2N2368†	360m	640MΔ	2.0m	§J	40	15	4.5	500m	.40uØ	1.0Ø	10mØ	40 †				4p☑	PEΔ	TO18	AØ
6#	BSX28†	360m	650M§	2.0m	§J	30	12	4.5		.40u§	1.0Ø	100mØ	50 †#				2.3p	DPE	TO18	AØ
7#	BSX93†	360m	650M§	2.0m	§J						1.0Ø	10mØ	40 Δ#				4p☑	PE	TO18	
8	2N4873†	360m	700M§Δ	2.0m	§J	40	15	4.5	200m	.40u§	1.0Ø	10mØ	150 †#				4p☑		TO18	AØ
9#	2SC639†	360m	750M§	2.0m	§J	40	40 Ø	5.0	200m	400nØ	1.0Ø	10mØ	80				1.5p	PE	TO18	
10	2N2369†	360m	800MΔ	2.0m	§J	40	15	4.5	500m	.40uØ	1.0Ø	10m	80 †				4p☑	PE	TO18	AØ
11	2N5292§	360m	800M§Δ	2.1m	§J	12	12	4.5	100m	1n§	1.0Ø	100m	30 †Δ#				4.5p$☑	Δ	TO18	AØ
12	2N5107§	360m	900M§☑	2.0m	§J	60	30	5.0	500m	.01uØ	10Ø	150mØ	100 †#Δ				8p$☑	Δ	TO18	A
13#	BF223	360m	950M§	3.1m	§J	35	25	4.0	40m	50nØ	10Ø	15mØ	85 †				380f	PE	MM11	C
14	2N5263	360m	1.0G§Δ	2.9m	§J	30	15	2.5	25m	.01uØ	5.0Ø	2.0mØ	20 Δ					PEØ	u34	A
15	LDA407	360m	1.5G§	2.9m	§J	30	15	2.5	25m	10nØ	5.0Ø	15mØ	25 †Δ				1p$	PEØ	u34c	P
16	FM870	375m	80.MΔ	2.1m	§J	100	60	7.0		.01uØ	10Ø	150mØ	75 †#	9.0u	2.3k	3.0	15p☑	PLΔ	TO46	AØ
17	FM871	375m	96MΔ	2.1m	§J	100	60	7.0		10nØ	10Ø	150mØ	130 †#	16	3.5k	4.6	15p☑	PLΔ	TO46	AØ
18#	BCY58A	390m	150M§Δ	2.2m	§J	32	32	7.0	200m	.01u	5.0Ø	2.0mØ	200					PE	TO18	AØ
19#	BCY58B	390m	150M§Δ	2.2m	§J	32	32	7.0	200m	.01u	5.0Ø	2.0mØ	260					PE	TO18	AØ
20#	BCY58C	390m	150M§Δ	2.2m	§J	32	32	7.0	200m	.01u	5.0Ø	2.0mØ	330					PE	TO18	AØ
21#	BCY58D	390m	150M§Δ	2.2m	§J	32	32	7.0	200m	.01u	5.0Ø	2.0mØ	520					PE	TO18	AØ
22#	BCY59A	390m	150M§Δ	2.2m	§J	45	45	7.0	200m	.01u	5.0Ø	2.0mØ	200					PE	TO18	AØ
23#	BCY59B	390m	150M§Δ	2.2m	§J	45	45	7.0	200m	.01u	5.0Ø	2.0mØ	260					PE	TO18	AØ
24#	BCY59C	390m	150M§Δ	2.2m	§J	45	45	7.0	200m	.01u	5.0Ø	2.0mØ	330					PE	TO18	AØ
25#	BCY59D	390m	150M§Δ	2.2m	§J	45	45	7.0	200m	.01u	5.0Ø	2.0mØ	520					PE	TO18	AØ
26	2N4074	400m#		3.3m	§S	40	40	8.0	300m	10nØ	12Ø	10mØ	400 ☑						R123	AØ
27#	2SC814	400m		4.0m	♦J	30	18	5.0	500m	.20uØ	5.0Ø	50mØ	150 †						X28a	A
28▼#	2SC853	400m			§J	70	60	5.0	200m	100n	1.0Ø	50mØ	80 †					PE	X28a	B
29▼#	2SC881	400m			§J	60	45	5.0	200m	100n	1.0Ø	50mØ	80 †					PE	X28a	B
30▼#	2SD228	400m			§J	30	15	5.0	300m	100n	1.0Ø	300mØ	120 †					PE	X28a	B
31▼#	BC282	400m		2.2m	§J	60	30	5.0	600m	50n	5.0Ø	50mØ	50 †Δ	660m	240	3.6	5.5p	DPE	TO18	
32▼	MD1T3704	400m			§A	50	30	5.0	200m	100nØ	2.0Ø	50mØ	100 †#Δ				12p☑		TO122	P
33	2N5066Ø	400m	5.0M§Δ	2.3m	§S	30	20	30	100m	1.0n							10p☑	Δ	TO46	AØ
34#	BF250	400m	20.M§	2.7m	§A	15	15	3.0	600m		5.0Ø	.01m	30 †Δ				8.0p	PEØ	TO18	AØ
35	2N930/46	400m	30M§Δ	3.0m	§J	45	45	5.0	30m	10n	5.0Ø	1.0mØ	150 Δ				8.0p	PLØ	TO46	
36	2N2514	400m	30M	2.3m	§S	80	60	6.0	100m	5.0nØ	5.0Ø	1.0m	15 Δ		1.2k		6.0p☑		TO46	Ø
37#	BFV98	400m	30M§Δ	2.6m	§J	45	45	5.0	30	50n	5.0Ø	10uØ	100 †Δ	b	32 ☑	6.0 ☑	8.0p☑	PEØ	L56f	
38#	BFV98N	400m	30M§Δ	2.6m	§J	45	45	5.0	30	50n	5.0Ø	10uØ	100 †Δ	b	32 ☑	6.0 ☑	8.0p☑	PEØ	L56g	
39♦	2N719	400m	40M§Δ	375m	§J	120	80 §	5.0		2.0uØ	10	5.0mØ	25 Δ	500n☑b	35 ☑	2.5 ☑	20p☑		TO18	AØ
40#	C400	400m	40M§Δ	2.7m	§J	60	30	4.0		100nØ	10Ø	100mØ	40 †Δ	14u	600	1.1	25p☑	PE	TO18	Ø
41♦	2N720	400m	50M§Δ	375m	§J	120	80 §	5.0		2.0uØ	10	5.0mØ	45 Δ	500n☑b	30 ☑	2.5 ☑	20p☑		TO18	AØ
42	2N909	400m	50M§Δ	2.6m	§J	60	30 §	5.0		1.0uØ	5.0Ø	1.0mØ	40 Δ	500n☑b	35 ☑	8.0 ☑	35p☑		TO18	AØ
43	2N2350†	400m	50M§Δ	2.3m	§J	60	40	5.0	1	.01uØ	10Ø	150mØ	100 †#Δ				20p☑	PE	TO46	AØ
44	2N2350A†	400m	50M§Δ	2.3m	§J	60	40	5.0	1	.01uØ	10Ø	150mØ	100 †#Δ				20p☑	PE	TO46	AØ
45	2N2351†	400m	50M§Δ	2.3m	§J	80	50	8.0	1	.01uØ	10Ø	150mØ	40 †#Δ				20p☑	PE	TO46	AØ
46	2N2351A†	400m	50M§Δ	2.3m	§J	80	50	8.0	1	.01uØ	10Ø	150mØ	40 †#Δ				20p☑	PE	TO46	AØ
47	2N2352†	400m	50M§Δ	2.3m	§J	60	40	5.0	1	.01uØ	10Ø	150mØ	20 †#Δ				20p☑	PE	TO46	A
48	2N2352A†	400m	50M§Δ	2.3m	§J	60	40	5.0	1	.01uØ	10Ø	150mØ	20 †#Δ				20p☑	PE	TO46	AØ
49	2N2364†	400m	50M§Δ	2.3m	§J	120	80	7.0	1	.01uØ	10Ø	150mØ	40 †#Δ				15p☑	PE	TO46	AØ
50	2N2364A†	400m	50M§Δ	2.3m	§J	120	80	7.0	1	.01uØ	10Ø	150mØ	40 †#Δ				15p☑	PE	TO46	AØ
51	2N2520	400m	50M	4.3m	§J	60	60	8.0		5.0nØ	5.0Ø	1.0mØ	18 Δ	1.0ub	30	6.0	4.0p	PL	TO46	A
52	2N2521	400m	50M	4.3m	§J	60	60	8.0		5.0nØ	5.0Ø	1.0mØ	36 Δ	1.0ub	30	6.0	4.0p	PL	TO46	A
53	2N2522	400m	50M	4.3m	§J	60	60	8.0		5.0nØ	5.0Ø	1.0mØ	76 Δ	1.0ub	30	6.0	4.0p	PL	TO46	A
54	2N2909	400m	50M§Δ	2.3m	§J	60	40	7.0	1	.01uØ	10Ø	10mØ	30 †Δ				20p☑	Δ	TO46	AØ
55	2N2515	400m	60.M	2.3m	§S	80	60	6.0	100m	5nØ	5.0Ø	1.0m	30 Δ		1.5k		6p☑		TO46	AØ
56	40234	400m#	60.M§	3.3m	§J	18	18	5.0	100m	.50uØ	10Ø	2.0mØ	80				22p	PLØ	R92	AØ
57♦#	AT380	400m	60M§Δ	2.3m	§J	60	40	6.0	1.0	200nØ	1.0Ø	50mØ	40 †Δ				25p☑	PE	TO18	AØ
58▼#	AT381	400m	60M§Δ	2.3m	§J	86	60	6.0	1.0	200n	1.0Ø	50mØ	40 Δ				25p☑	PE	TO18	AØ
59▼#	AT382	400m	60M§Δ	2.3m	§J	100	80	6.0	1.0	200n	1.0Ø	50mØ	40 Δ				25p☑	PE	TO18	AØ
60▼#	AT383	400m	60M§Δ	2.3m	§J	60	40	6.0	1.0	200n	1.0Ø	50mØ	100 Δ				25p☑	PE	TO18	AØ
61▼#	AT384	400m	60M§Δ	2.3m	§J	80	60	6.0	1.0	200n	1.0Ø	50mØ	100 Δ				25p☑	PE	TO18	AØ
62▼#	AT385	400m	60M§Δ	2.3m	§J	100	80	6.0	1.0	200n	1.0Ø	50mØ	100 Δ				25p☑	PE	TO18	AØ
63▼#	AT386	400m	60M§Δ	2.3m	§J	60	40	6.0	1.0	200n	1.0Ø	50mØ	40 Δ				25p☑	PE	TO18	AØ
64▼#	AT387	400m	60M§Δ	2.3m	§J	80	60	6.0	1.0	200n	1.0Ø	50mØ	40 Δ				25p☑	PE	TO18	AØ
65▼#	AT388	400m	60M§Δ	2.3m	§J	100	80	6.0	1.0	200n	1.0Ø	50mØ	40 Δ				25p☑	PE	TO18	AØ
66	2N717†	400m	64.MΔ	2.6m	§S	60	40 §	5.0		1.0uØ	10Ø	150mØ	20 #Δ				35p☑	D	TO18	AØ
67	2N3340†	400m	70M§Δ	2.6m	§A	30	20	5.0	30m	1nØ	1.0Ø	.01mØ	40 †Δ				6p☑		TO46	AØ
68	2N718†	400m	80MΔ	2.6m	§S	60	40 §	5.0		1.0nØ	10Ø	150mØ	40 Δ#	12u	2.2k	3.6	35p☑	D	TO18	AØ
69	2N3056	400m	80M§Δ	2.2m	§J	100	60	7.0	1.0	10nØ	10Ø	100uØ	30 Δ				12p☑	PL	TO46	AØ
70	2N3056A	400m	80M§Δ	2.3m	§J	140	80	7.0	1	.01uØ	5.0Ø	1.0mØ	30 Δ				12p☑		TO46	AØ
71	2N2516	400m	99.M	2.3m	§S	80	60	8.0	100m	5nØ	5.0Ø	1.0m	60 Δ		1.8k		6p☑		TO46	AØ
72	2N2518	400m	100M§	4.3m	§J	125	80	8.0		5nØ	5.0Ø	5.0mØ	40 Δ		1.5k		4.0p	PL	TO46	A
73	2N2519	400m	100M§	4.3m	§J	125	80	8.0		5nØ	5.0Ø	5.0mØ	80 Δ		1.8k		4.0p	PL	TO46	A
74	2N2523	400m	100M§	4.3m	§J	60	45	6.0		2.0nØ	5.0Ø	1.0mØ	60	1.0ub	28	6.0	4.0p	PLØ	TO46	A
75	2N2524	400m	100M§	4.3m	§J	60	45	6.0		2.0nØ	5.0Ø	1.0mØ	150	1.0ub	28	6.0	4.0p	PLØ	TO46	A
76	2N3057	400m	100M§Δ	2.3m	§J	100	60	7.0		10nØ	10Ø	150mØ	100 †#Δ	4.0u	1.5k	800m	12p☑	PL	TO46	AØ
77	2N3057A	400m	100M§Δ	2.3m	§J	140	80	7.0	1	.01uØ	5.0Ø	1.0mØ	80 Δ				12p☑	Ø	TO46	AØ
78	JAN2N3057A	400m	100M§Δ	2.2m	§J	140	80	7.0	1.0	10n§	5.0Ø	1.0mØ	80 Δ				12p☑	Ø	TO46	AØ
79	2N4315*	400m	100M§Δ	2.6m	§S	30	25	5.0	50m	.01uØ	5.0Ø	.01mØ	100 †Δ				6p☑	PE*Ø	L2b	
80▼	D33D1	400m	112M§Δ	4.0m	♦J	40	30	5.0	500m	100n	5.0Ø	100uØ	25M†Δ				10p$☑	PE†	T098	B
81▼	D33D4	400m	112M§Δ	4.0m	♦J	50	40	5.0	500m	100n	5.0Ø	100uØ	25M†Δ				10p$☑	PE†	T098	B
82#	2S102	400m	120M§	2.6m	§A	60	45	4.5	50m	.25uØ	5.0	10m	40	25u	450	.90	5.0p	ME	TO18	
83#	2S731	400m	120M	5.6m	#J	30	30	3.0	50m	1.0u	5.0	5.0m	40	25u	450	.90	5.0p	ME	TO18	
84#	2S732	400m	120M	5.6m	#J	30	30	3.0	50m	1.0u	5.0	5.0m	60	25u	450	.90	5.0p	ME	TO18	
85#	2S733	400m	120M	5.6m	#J	30	30	3.0	50m	1.0u	5.0	5.0m	100	25u	450	.90	5.0p	ME	TO18	
86#	ME8001	400m	130M§Δ	3.1m	§J	40	30	5.0	800m	500nØ	10Ø	150mØ	30 †Δ#	15u☑b	4.9k	4.2 ☑	12p☑	PEΔ	R110a	A
87#	ME8002	400m	130M§Δ	3.1m	§J	80	60	7.0	800m	10nØ	10Ø	150mØ	100 †Δ#	500n☑b	30 ☑	1.5 ☑	10p☑	PEΔ	R110a	A
88#	ME8003	400m	130M§Δ	3.2m	§J	80	60	7.0	800m	10nØ	10Ø	150mØ	100 †Δ#	500n☑b	30 ☑	1.5 ☑	10p☑	PEΔ	R110a	A
89#	2S103	400m	135M§	2.6m	§A	60	45	4.5	50m	.25uØ	5.0	10m	65	65u	60	1.1	5.0p	ME	TO18	
90	2N2310†	400m	150M	2.9m	▼J	60		8.0		10uØ	10Ø	200mØ	20 †				14p	PL	TO46	AØ
91	2N2311†	400m	150M	2.9m	▼J	100		8.0		10uØ	10Ø	200mØ	20 †				14p	PL	TO46	AØ
92	2N2312†	400m	150M	2.9m	▼J	60	60	8.0		10uØ	10Ø	200mØ	60 †		500 ☑		14p	PL	TO46	AØ
93	2N2313†	400m	150M	2.9m	▼J	100		8.0		10uØ	10Ø	200mØ	60 †				14p	PL	TO46	AØ
94	2N2314	400m	150M	2.8m	§J	60		8.0		1.0uØ	10Ø	15mØ	45 †	500nb	5.4	1.0	20p	PL	TO46	AØ
95	2N2315†	400m	150M	2.6m	§J	60		5.0		1.0uØ	10Ø	150mØ	70 †#	200nb	26	1.6		PL	TO46	AØ
96	2N2459	400m	150M§	4.3m	§J	100	60	8.0		2nØ	5.0Ø	5.0mØ	40 Δ	30u	800		5p☑	PL	TO46	A
97	2N2460	400m	150M§	4.3m	§J	100	60	8.0		2nØ	5.0Ø	5.0mØ	70 Δ	60u	1.2k		5p☑	PL	TO46	A
98	2N2461	400m	150M§	4.3m	§J	100	60	8.0		2nØ	5.0Ø	5.0mØ	120 Δ	90u	1.8k		5p☑	PL	TO46	A
99	2N2462	400m	150M§	4.3m	§J	100	60	8.0		2nØ	5.0Ø	5.0mØ	170 Δ	120u	2.4k		5p☑	PL	TO46	A
100	2N4100*	400m	150M§Δ	4.3m	§S	55	55	7.0	10m	.10u†Ø	5.0Ø	1.0mØ	175 †Δ				.8p☑		L2m	
101#	2S104	400m	150M§	2.6m	§A	60	45	4.5	50m	250nØ	5.0	10m	90	95u	1.0k	1.3	5.0p	ME	TO18	
102▼	D33D2	400m	150M§Δ	4.0m	♦J	40	30	5.0	500m	100n	5.0Ø	100uØ	65M†Δ				10p$☑	PE†	T098	B
103▼	D33D3	400m	150M§Δ	4.0m	♦J	40	30	5.0	500m	100n	5.0Ø	100uØ	130M†Δ				10p$☑	PE†	T098	B
104▼	D33D5	400m	150M§Δ	4.0m	♦J	50	40	5.0	500m	100n	5.0Ø	100uØ	65M†Δ				10p$☑	PE†	T098	B
105▼	D33D6	400m	150M§Δ	4.0m	♦J	50	40	5.0	500m	100n	5.0Ø	100uØ	130M†Δ				10p$☑	PE†	T098	B
106#	BFV96†	400m	175M§Δ	2.6m	§J	40	25	5.0	800m	.50uØ	1.0Ø	500mØ	25 †Δ*				15p☑	PE	L56f	
107#	BFV96N†	400m	175M§Δ	2.6m	§J	40	25	5.0	800m	.50uØ	1.0Ø	500mØ	25 †Δ*				15p☑	PE	L56g	
108	2N2316	400m	180M	2.6m	§J	120	80 §	5.0		2.0uØ	10Ø	150mØ	65 †#	300nb	25	2.5 ☑	14p	PLΔ	TO46	AØ
109	2N706/46†	400m	200M§Δ	3.3m	§J	25	20 §	3.0		50nØ	1.0Ø	10mØ	20 †#Δ				6.0p☑	D	TO46	A
110	2N753/46†	400m	200M§Δ	3.3m	§J	25	20 §	5.0	200m	500nØ	1.0Ø	10mØ	40 †Δ				5.0p☑	E	TO46	

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M A X	E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	BSX97†	400m	200M§Δ	2.6m	§J		40	25	5.0	500m	10nØ	10Ø	500mØ	20 Δ				8.0pØ	EΔ	TO18	Ø
2	PT1836	400m	200M	2.6m	§J		45	30 §	4.0		.50u	10Ø	150mØ	90 †Ø				24p	PLΔ	TO18	
3	PT1837	400m	200M	2.6m	§J		80	50 §	8.0		.50uØ	10Ø	150mØ	120 †Ø					PLΔ	TO18	A
4	2N3115†	400m	250M§Δ	2.6m	§J		60	20	5.0	600m	25nØ	10Ø	150mØ	40 †Δ				8.0pØ	PEΔ	TO18	A
5	2N3116†	400m	250M§Δ	2.6m	§J		60	20	5.0	600m	25nØ	10Ø	150mØ	100 †Δ				8.0pØ	PEΔ	TO18	A
6#	BF248	400m	250M§	2.7m	§A		30	25	3.0	600m		10Ø	5.0mØ	20 †Δ				6.0p	PE	TO18	AØ
7#	BFV93	400m	250M§Δ	2.6m	§J		50	30	5.0	800m	.05uØ	10Ø	150mØ	80 †Δ*					PE	L56h	
8#	BFV93N†	400m	250M§Δ	2.6m	§J		50	30	5.0	800m	.05uØ	10Ø	150mØ	80 †Δ*				5.0p	PE	L56j	
9#	BFV94†	400m	250M§Δ	2.6m	§J		50	30	5.0	800m	.05uØ	10Ø	150mØ	80 †Δ*				5.0p	PE	L56f	
10#	BFV94N†	400m	250M§Δ	2.6m	§J		50	30	5.0	800m	.05uØ	10Ø	150mØ	80 †Δ*				5.0p	PE	L56g	
11	MQ3725*	400m	250M§Δ	2.2m	§J		65	40	6.0	1.0	1.7uØ	1.0Ø	100mØ	50 †Δ				10pØ	ANΔ	L56c	
12#	TM2613	400m	250M§Δ	1.4m	§A		60	40 §	5.0	600m	.05uØ	10Ø	150mØ	40 †Δ				8pØ	PE	TO18	
13#	TM2711	400m	250M§Δ	1.4m	§A		60	30 §	5.0	600m	.05uØ	10Ø	150mØ	100 †Δ				8pØ	PE	TO18	
14	MM709	400m	300M§Δ				15	8.0	4.0				10mØ	15 †Δ				3pØ	ANΔ	TO52	
15#	2C444*	400m	350M§	2.6m	§J		50	35	4.0		25nØ	5.0Ø	5.0mØ	80	30u	1.0k		3.0p	DPLØ	L2b	
16	2N3647	400m	350M§Δ	2.3m	§S		40	10	6.0	500m	25n#	1.0Ø	150mØ	150 †Ø	100uØ	4.5k	25	4pØ		TO5	A
17#	BFV92†	400m	350M§Δ	2.6m	§J		40	15	5.0	200m	.50u§	1.0Ø	30mØ	30 †Δ*				5pØ	PE	L56f	
18#	BFV92N†	400m	350M§Δ	2.6m	§J		40	15	5.0	200m	.50u§	1.0Ø	30mØ	30 †Δ*				5pØ	PE	L56g	
19	2N706B46	400m	400M§Δ	3.3m	§J		25	20 §	5.0		10u	1.0Ø	10mØ	40 †				4.5p	PE	TO46	
20	2N3648	400m	450M§Δ	2.3m	§S		40	15	6.0	500m	25n	1.0Ø	150mØ	120	100u	4.5k	25	4.0p		TO46	AØ
21	2N3508†	400m	500M§Δ	2.3m	§S		40	20	6.0	200m	.20uØ	1.0Ø	10mØ	40 †Δ				4pØ		TO46	AØ
22	2N3509†	400m	500M§Δ	2.3m	§S		40	20	6.0	200m	.20uØ	1.0Ø	10mØ	100 †Δ				4pØ		TO46	AØ
23	TIS86	400m	500M§Δ	3.2m	§J		30	30	4.0	50m	.10uØ	10Ø	4.0mØ	40 †Δ					PE†	X55	C
24	TIS87	400m	500M§Δ	3.2m	§J		45	45	4.0	50m	.10uØ	12Ø	12mØ	30 †Δ					PE†	X55	C
25	2N2369/46	400m	600MΔ	2.3m	§J		40	15	4.5	500m	400nØ	1.0Ø	10m	40 †				4.0p	PE	TO46	
26#	BFV97	400m	600M§Δ	2.6m	§J		30	15	3.0	50m	.05uØ	1.0Ø	3.0mØ	20 †Δ				1.7pØ	PEØ	L56f	
27#	BFV97N	400m	600M§Δ	2.6m	§J		30	15	3.0	50m	.05uØ	1.0Ø	3.0mØ	20 †Δ				1.7pØ	PEØ	L56g	
28	UCX2910*	400m	600M§Δ		§S		30	15	4.0		.1pØ	1.0Ø	3.0mØ	40 †Δ				pØ	PLΔØ	L2d	
29	2N709A46†	400m	1.0G§	2.3m	§J		15	6.0	4.0		5.0nØ	.50Ø	10mØ	60 †				3.0pØ	PE	TO46	
30	2N2784/46†	400m	1.0G§	2.3m	§J		15	6.0	4.0		5nØ	.50Ø	10mØ	120 †Ø				3pØ	PE	TO46	
31	JAN2N3959	400m	1.0G§Δ	2.2m	§J		20	12	4.5		1.0u#	1.0Ø	10mØ	60 †Δ				2.5pØ		TO18	AØ
32	K2607	400m	1.0G§	2.3m	§J		20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO46	
33	K2608	400m	1.0G§	2.3m	§J		20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO46	
34	K2609	400m	1.0G§	2.3m	§J		20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO46	
35	2N709/46†	400m	1.2G	2.2m	§J		15	6.0	4.0		50nØ	.50Ø	10mØ	55 †				3.0pØ		TO46	
36	2N3959†	400m	1.3G§Δ	2.3m	§S		20	12	4.5	30m	5n#Ø	1.0Ø	10mØ	400 †Ø				2.5pØ	Δ	TO18	AØ
37	JAN2N3960	400m	1.3G§Δ	2.2m	§J		20	12	4.5		1.0u#	1.0Ø	10mØ	60 †Δ				2.5pØ		TO18	AØ
38	K2502	400m	1.3G§	2.0m	§J		25	10	2.0		.10uØ	10Ø	8.0mØ	20 Δ				2pØ		TO46	A
39	K2507	400m	1.3G§	2.0m	§J		30	10	2.0		.10uØ	10Ø	8.0mØ	20 Δ				2pØ		TO46	A
40	K2607A	400m	1.4G§	2.3m	§J		20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO46	
41	K2608A	400m	1.4G§	2.3m	§J		20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO46	
42	K2609A	400m	1.4G§	2.3m	§J		20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO46	
43	2N3960†	400m	1.6G§Δ	2.3m	§S		20	12	4.5	30m	5n#	1.0Ø	10mØ	400 †Ø				2.5pØ	Δ	TO18	AØ
44	K2607B	400m	1.7G§	2.3m	§J		20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO46	
45	K2608B	400m	1.7G§	2.3m	§J		20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO46	
46	K2609B	400m	1.7G§	2.3m	§J		20	10	2.0	30m	.10uØ	1.0Ø	3.0mØ	50 †				2pØ		TO46	
47#	2C425*	430m	70.M§	2.9m	§J		75		7.0		.02uØ	10Ø	50mØ	100 †				13p	DPLØ	L2b	
48#	BCY13	450mØ	.40M	5.0m	§J			60	10	200m		1.0Ø	100mØ	15 †					A	R23	
49#	BCY14	450mØ	.40M	5.0m	§J			100	10	200m		1.0Ø	100mØ	15 †					A	R23	
50#	BCY15	450mØ	.40M	5.0m	§J			60	10	300m		1.0Ø	100mØ	15 †					A	R23	
51#	BCY16	450mØ	.40M	5.0m	§J			100	10	300m		1.0Ø	100mØ	15 †					A	R23	
52	2N2395	450m	40M§Δ	2.6m	§J		60	40	5.0	300m	.01uØ	10Ø	150mØ	20 †#Δ				30pØ	PL	u25	
53	2N2396	450m	50M§Δ	2.6m	§J		60	40	5.0	300m	.01uØ	10Ø	150mØ	40 †#Δ				30pØ	PL	u25	
54	SE7015	450m	50M§Δ	4.5m	♦J		100	100	6.0		10nØ	10Ø	25mØ	50 †#Δ				3.5p$Ø	PL	TO105	A
55	SE7016	450m	50M§Δ	4.5m	♦J		140	140	6.0		10nØ	10Ø	25mØ	50 †#Δ				3.5p$Ø	PL	TO105	A
56	SE7017	450m	50M§Δ	4.5m	♦J		180	180	6.0		10nØ	10Ø	25mØ	50 †#Δ				3p$Ø	PL	TO105	A
57	2N2389†	450m	60M§Δ	2.5m	§J		75	50 §	7.0	500m	10nØ	10Ø	5.0mØ	35 Δ	1.0uØb	8.0 Ø	3.0 Ø	25pØ	PLØ	u25	
58	2N2390	450m	70M§Δ	2.5m	§J		75	50 §	7.0	500m	10nØ	10Ø	5.0mØ	70 Δ	1.0uØb	8.0 Ø	5.0 Ø	25pØ	PLØ	u25	
59	2N3728*	450m	80M§Δ	2.6m	§J		60	30	5.0		.01uØ	10Ø	1.0mØ	50 Δ	20uØ	6kØ	3 Ø	8pØ	Ø*	L2t	
60	2N3729*	450m	80M§Δ	2.6m	§J		60	30	5.0		.01uØ	10Ø	1.0mØ	50 Δ		6kØ	3 Ø	8pØ	Ø*	L2t	
61	CS697†	450m	80MΔ				60	40 §	5.0		1.0uØ			40 Δ#	12u	2.2k	3.6	35pØ	D	R97	
62	CS1420†	450m	80.MΔ				60	30 §	5.0		1.0uØ	10Ø	150mØ	150 †#				35pØ	D	R97	
63#	BC210	450m	250M§	3.0m	§J		50	25	5.0	700m	.10uØ	1.0Ø	150m	20 †Δ				8pØ		TO18	A
64	FT3641†	450m	250M§Δ	4.5m	♦J		60	30	5.0		.05u§Ø	10Ø	10mØ	90	55u	460	1.3	8pØ	DPE	R124 c	A
65	FT3642†	450m	250M§Δ	4.5m	♦J		60	45	5.0		.05u§Ø	10Ø	10mØ	90	55u	460	1.3	8pØ	DPE	R124 c	A
66	FT3643†	450m	250M§Δ	4.5m	♦J		60	30	5.0		.05u§Ø	10Ø	10mØ	170	83u	950	2.0	58pØ	DPE	R124 c	A
67	A214	450m	1.2G§	2.8	§J		40	25	3.0	150m	10nØ	5.0	150m	25 †Δ					PE	TO46	A
68	KD5520	450mØ	1.8G§Δ	3.0m	§J		30	12	2.5		.30uØ	6.0Ø	10mØ	18 Δ				.7pØ		X72	
69	KD5521	450mØ	1.8G§Δ	3.0m	§J		30	12	2.5		.30uØ	6.0Ø	10mØ	18 Δ				.7pØ		X72	
70	KD5525	450mØ	2.0G§Δ	2.6m	§J		20	12	2.5	50m	.05uØ	1.0Ø	3.0mØ	20 †Δ				.75pØ	PEØ	X72	V
71	KD5526	450mØ	2.0G§Δ	2.6m	§J		20	12	2.5	30m	.05uØ	1.0Ø	3.0mØ	20 †Δ				.75pØ	PEØ	X72	V
72	JAN2N560†	500m		2.7m	§J		60	60 Ø	8.0	100m	50nØ	5.0Ø	100mØ	20 †Δ				8.0pØ		TO5	AØ
73	2N734	500m		3.3m	§S		80	60	5.0	50m	1.0uØ	5.0Ø	5.0m	20 Δ		1.2k		10pØ		TO18	AØ
74	2N735	500m		3.3m	§S		80	60	5.0	50m	1.0uØ	5.0Ø	5.0m	40 Δ		1.5k		10pØ		TO18	AØ
75	2N736	500m		3.3m	§S		80	60	5.0	50m	1.0uØ	5.0Ø	5.0m	80 Δ		1.8k		10pØ		TO18	AØ
76	2N738	500m		3.3m	§S		125	80	5.0	50m	1.0uØ	5.0Ø	5.0m	20 Δ		1.2k		10pØ		TO18	AØ
77	2N739	500m		3.3m	§S		125	80	5.0	50m	1.0uØ	5.0Ø	5.0m	40 Δ		1.5k		10pØ		TO18	AØ
78	2N740	500m		3.3m	§S		125	80	5.0	50m	1.0uØ	5.0Ø	5.0m	80 Δ		1.8k		10pØ		TO18	AØ
79	2N742	500m		4.0m	§A		60	60 Ø	8.0	100m	10u	5.0Ø	100mØ	20 Δ				8pØ	MEΔ	TO18	AØ
80	2N742A	500m		4.0m	§A		60	60 Ø	8.0	100m	10u	5.0Ø	100mØ	20 Δ				8pØ	MEΔ	TO18	AØ
81	2N997	500m		3.0m	§S		75	40	7.0	300m	.01uØ	10Ø	10mØ	4.0kt Δ				36pØ		TO18	AØ
82	2N1051	500m		4.0m	§S		60	40	8.0	100m	10nØ	5.0Ø	5.0mØ	30	b	15 Ø		7.0pØ		TO5	AØ
83#	BFX66	500m		3.0m	▼S		75	40	7.0	300m	.01uØ	10Ø	10mØ	4.0kt Δ				36pØ	PLØ	TO18	
84	JAN2N333A	500m	2.5MΔ	3.3m	§S		45	45	4.0		500nØ	5.0	1.0m	44 Ø	1.2uØb	80 Ø	10 Ø	15pØ		TO5	A
85	JAN2N335A	500m	2.5MΔ	3.3m	§S		45	45	4.0		500nØ	5.0	1.0m	90 Ø	1.2uØb	80 Ø	10 Ø	15pØ		TO5	
86	JAN2N336A	500m	2.5MΔ	3.3m	§S		45	45	4.0		500nØ	5.0	1.0m	270 Ø	1.2uØb	80 Ø	10 Ø	15pØ		TO5	
87	2N1095	500m	3.0M				60					30Ø	20m	36					G		
88	2N1096	500m	3.0M				90					40Ø	15m	35					G		
89	2N1704	500m	5.0M	3.3m	§		45		6.0	50m	.10u	5.0	1.0m	50 †Δ	1.2u	55		15p		TO5	AØ
90	2N332A	500m	10.M	3.3m	§J		45	45	4.0	25m	.50u	5.0	1.0m	16	3.5u	750	.70	7.0p		TO5	A
91	2N333A	500m	11.M	3.3m	§J		45	45	4.0	25m	.50u	5.0	1.0m	30	5.0u	1.3k	1.0	7.0p	D	TO5	A
92	2N334A	500m	12.M	3.3m	§J		45	45	4.0	25m	.50u	5.0	1.0m	38	6.0u	1.7k	1.3	7.0p	D	TO5	A
93	2N335A	500m	13.M	3.3m	§J		45	45	4.0	25m	.50u	5.0	1.0m	52	7.0u	2.0k	1.5	7.0p	D	TO5	A
94	2N335B	500m	13.M		§J		60	60	4.0	25m	.50uØ	5.0	1.0m	52	7.0u	2.0k	1.5	7.0p		TO5	A
95	2N336A	500m	15.M	3.3m	§J		45	45	4.0	25m	.50u	5.0	1.0m	95	8.0u	3.7k	2.3	7.0p	D	TO5	A
96	TN64†	500m	20M§Δ	2.8m	§J		20	20	5.0	800m	100n	5.0Ø	1.0mØ	65 Δ	100nb	26	2.0	8.0pØ	PEØ	TO18	A
97	40080	500m	27.M*	2.9m	§J			30		250m	10u							6pØ	DPL	TO5	AØ
98	2N337A	500m	30.M	3.3m	§J		45	35	2.5	20m	50u	20	1.0mØ	55	13u	2.5k	2.5	2.0p	D	TO5	A
99	2N1140	500m$	35M§Δ	5.0m	§J		40	40	5.0		15u	6.0Ø	1.0mØ	20 Δ				20pØ		R81a	AØ
100♦	2N719A	500m	40M§Δ	350m	§J		120	60	7.0	1.0 #	10nØ	5.0	1.0mØ	15 Δ	500nØb	35 Ø	2.5 Ø	85pØ		TO18	AØ
101	2N730†	500m	40M§Δ	3.3m	§J		60	40 §	5.0	1	1.0u	10Ø	150mØ	40 †#				35pØ	PL	TO18	AØ
102♦	JAN2N912	500m	40M§Δ		§J		100	60	7.0		15nØ	5.0Ø	5.0 Ø	20 Δ	25uØ	500 Ø	1.5 Øb	15pØ		TO18	AØ
103	2N338A	500m	45.M	3.3m	§J		45	35	2.5	20m	.50u	20	1.0mØ	99	15u	3.0k	2.6	2.0p	D	TO5	A
104	2N929A	500m	45M§Δ	2.8m	§S		60	45	6.0	30m	2.0nØ	5.0Ø	1.0mØ	60 Δ	1.0uØb	32 Ø	6.0 Ø	6.0pØ	Ø	TO18	AØ
105	2N930A	500m	45M§Δ	2.8m	§S		60	45	6.0	30m	2.0nØ	5.0Ø	1.0mØ	150 Δ	1.0uØb	32 Ø	6.0 Ø	6.0pØ	Ø	TO18	AØ
106	2N930B	500m	45M§Δ	2.8m	§S		60	45	6.0	30m	2.0nØ	5.0Ø	1.0mØ	150 Δ	1.0uØb	32 Ø	6.0 Ø	6.0pØ	Ø	TO18	AØ
107	2N560†	500m	50.M	4.0m	§J		60	60 Ø	8.0	100m	.10uØ	5.0Ø	100mØ	20 †Δ				8pØ	D	TO29	AØ
108	2N731†	500m	50M§Δ	3.3m	§J		60	40 §	5.0	1	1.0u	10Ø	150mØ	80 †#				35pØ	PL	TO18	AØ
109	2N756	500m	50MΔ	2.8m	§A		45	45	6.0	100m	200n	5.0Ø	1.0m	18	1.0uØb	80 Ø	10 Ø	8.0pØ	ME	TO18	AØ
110	2N757	500m	50MΔ	2.8m	§A		45	45	6.0	100m	200n	5.0Ø	1.0m	30	1.0uØb	80 Ø	10 Ø	8.0pØ	ME	TO18	AØ

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N758	500m	50M△	2.8m	§A	45	45	8.0	100m	200n	5.0Ø	1.0m	54	1.0uØb	80 Ø	10 Ø	8.0pØ	ME	TO18	AØ
2	2N758B	500m	50M△	2.8m	§S	60	60	8.0	100m	5.0nØ	5.0Ø	1.0m	18 △	1.0uØb	35 Ø	6.0 Ø	6.0pØ		TO18	AØ
3	2N759	500m	50M△	2.8m	§A	45	45	8.0	100m	200n	5.0Ø	1.0m	63	1.0uØb	80 Ø	10 Ø	8.0pØ	ME	TO18	AØ
4	2N759B	500m	50M△	2.8m	§S	60	60	8.0	100m	5.0nØ	5.0Ø	1.0m	36 △	1.0uØb	35 Ø	6.0 Ø	6.0pØ		TO18	AØ
5	2N760	500m	50M△	2.8m	§A	45	45	8.0	100m	200n	5.0Ø	1.0m	204	1.0uØb	80 Ø	10 Ø	8.0pØ	ME	TO18	AØ
6	2N760B	500m	50M△	2.8m	§S	60	60	8.0	100m	5.0nØ	5.0Ø	1.0m	76 △	1.0uØb	35 Ø	6.0 Ø	6.0pØ		TO18	AØ
7	2N870	500m	50M§△	2.8m	§J	100	60	7.0		10nØ	5.0Ø	1.0mØ	30 △	500nØb	30 Ø	1.2 Ø	15pØ		TO18	AØ
8	2N911	500m	50M§△	2.8m	§J	100	60	7.0		25nØ	5.0Ø	1.0mØ	36 △#	50uØ	1.0k		15pØ		TO18	AØ
9♦	JAN2N911	500m	50M§△		§J	100	60	7.0		15nØ	5.0Ø	5.0 Ø	40 △	50uØ	1.0kØ	1.7 Øb	15pØ		TO18	AØ
10	2N981	500m	50M§△	2.8m	§A	80	80	8.0	100m	1.0uØ	5.0	1.0m	36 △	1.0uØb	80 Ø	10 Ø	5.0pØ		TO18	AØ
11	2N2223*	500m	50M§△	2.8m	§J	100	60	7.0	500m	10nØ	5.0Ø	1.0mØ	40 △	500nØb	30 Ø	3.0 Ø	15pØ	*	L2t	
12	2N2223A*	500m	50M§△	2.8m	§J	100	60	7.0	500m	10nØ	5.0Ø	1.0mØ	40 △	500nØb	30 Ø	3.0 Ø	15pØ	*	L2t	
13	2N2414	500m	50M§△	2.8m	§J	60	28	5.0	500m	25n	10Ø	1.0mØ	50 △	1.0uØb	8.0 Ø	5.0 Ø	25pØ	*	L2t	
14	2N2427	500m	50.M		§J	40		4.0	50m	.50u	3.0	.01m	20 †						TO18	AØ
15	2N2645	500m	50M§△	2.8m	§J	75	50 §	7.0		10nØ	5.0Ø	1.0mØ	75 △	500nØb	34 Ø	5.0 Ø	25pØ	Ø	TO18	AØ
16	2N3241A	500m	50M§△	3.0m	§S	30	25	7.5	200m	.10uØ	12Ø	10mØ	100 △	350uØ	1kØ		20pØ		TO104	AØ
17	2N3242A	500m	50M§△	3.0m	§S	40	40	8.0	300m	10nØ	12Ø	10mØ	125 △	350uØ	1.5k		20pØ	Ø	TO104	Ø
18	2N4068	500m	50M§△	3.3m	§S	150	150	5.0	200m	.05uØ	10Ø	30mØ	30 †△				3.5p$Ø		TO104	AØ
19	2N5184	500m	50M§△	3.3m	§S		120	5.0	50m		10Ø	50mØ	10 †△				3.5p$		TO104	AØ
20	40397	500m	50.M§	3.3m	§J		25	7.5	200m	.10u	12Ø	10mØ	375	120u	1.2k	2.5	12p	PE	R123	
21	40398	500m	50.M§	3.3m	§J		25	7.5	200m	.10u	12Ø	10mØ	200	75u	600	1.2	12p	PE	R123	
22	40399	500m	50.M§	3.3m	§J		18	7.0	200m	.50uØ	12Ø	10mØ	375	120u	1.2k	2.5	12p	PE	R123	
23	40400	500m	50.M§	3.3m	§J		18	7.0	200m	.50uØ	12Ø	10mØ	200	75u	600	1.2	12p	PE	R123	
24#	BCW25*	500m	50M	2.8m	§S	60	50	5.0	500m	100nØ	5.0Ø	100uØ	25 †△#				15pØ	PL	L2	
25#	BCW26	500m	50M	2.8m	§S	60	50	5.0	500m	100nØ	5.0Ø	100uØ	25 †△#				15pØ	PL*	L2	
26▼	MD1T1893	500m	50M§		$A	120	80	7.0		10nØ	10Ø	50mØ	2.5 △				15pØ		TO122	P
27	TN80	500m	50M§△	2.6m	§J	30	20	5.0		1.0n	1.0Ø	100uØ	75 †△				10pØ	PEØ	TO18	A
28♦	2N718A	500m	60M§△	350m	§J	75	32	7.0		10nØ	5.0	1.0mØ	30 △	500nØb	34 Ø	3.0 Ø	25pØ	DΔ	TO18	AØ
29	JAN2N718A	500m	60M§△	2.8m	§J	75	30	7.0	500m	10nØ	5.0Ø	1.0mØ	100 Ø	1.0uØb	8.0 Ø	3.0 Ø	25pØ	Δ	TO18	AØ
30	JAN2N720A	500m	60M§△	2.8m	§J	120	80	7.0	500m	10nØ	5.0Ø	1.0mØ	100 Ø	500nØb	8.0 Ø	1.5 Ø	15pØ	Δ	TO18	AØ
31	2N735A	500m	60M§△	2.8m	§S	80	60	6.0	50m	5.0nØ	5.0Ø	5.0m	40 △		1.5kØ		6.0pØ		TO18	AØ
32	2N739A	500m	60M§△	3.4m	§S	125	80	8.0	50m	5nØ	5.0Ø	5.0mØ	40 △		1.5kØ		6pØ		TO18	AØ
33	JAN2N757A	500m	60M§△	2.8m	§S	75	60	6.0	100m	10uØ	5.0	1.0m	18 △	1.0uØb	80 Ø	10 Ø	6.0pØ		TO18	AØ
34	JAN2N759A	500m	60M§△	2.8m	§S	75	60	8.0	100m	10uØ	5.0	1.0m	36 △	1.0uØb	80 Ø	10 Ø	6.0pØ		TO18	AØ
35	JAN2N760A	500m	60M§△	2.8m	§S	75	60	8.0	100m	10uØ	5.0	1.0m	76 △	1.0uØb	80 Ø	10 Ø	6.0pØ		TO18	AØ
36	2N871	500m	60M§△	2.8m	§J	100	60	7.0		10nØ	5.0Ø	1.0mØ	50 △	300nØb	30 Ø	1.5 Ø	15pØ		TO18	AØ
37♦	JAN2N910	500m	60M§△		§J	100	60	7.0		15nØ	5.0Ø	5.0 Ø	80 △	100uØ	1.6kØ	3.0 Øb	15pØ		TO18	AØ
38	2N2060*	500m	60M§△	2.9m	§S	100	60	7.0	500m	2nØ	5.0Ø	1.0m	50 △	16uØ	4kØ		15pØ	*Ø	L2t	
39	2N2060A*	500m	60M§△	3.4m	§J	100	60	7.0	500m	2nØ	5.0Ø	1.0mØ	50 △	16uØ	4kØ		15pØ		L2t	
40	2N2060B*	500m	60M§△	2.9m	§J	100	60	7.0	500m	2nØ	5.0Ø	1.0mØ	50 △	16uØ	4kØ	10 Ø	15pØ	Ø*	L2t	
41#	2SC848	500m	60.M§	3.3m	§J	30	20	5.0	200m	.10uØ	4.0Ø	10mØ	160 †					PL	TO18	
42#	2SC849†	500m	60.M§	3.3m	§J	30	20	5.0	300m	.50uØ	4.0Ø	10mØ	160 †					PL	TO18	
43	40231	500m	60M§	3.3m	§J	18	18	5.0	100m	500nØ	10Ø	2.0mØ	80				22p	PLØ	R92	Ø
44	40232	500m	60M§	3.3m	§J	18	18	5.0	100m	500nØ	10Ø	2.0mØ	175				22p	PLØ	R92	Ø
45	40233	500m	60M§	3.3m	§J	18	18	5.0	100m	250nØ	10Ø	2.0mØ	175				22p	PLØ	R92	Ø
46▼#	BC284A	500m	60M§	2.8m	§J	40	40	5.0	200m	50n	10Ø	10mØ	100 †△	60m	1.0k	1.5	15p	DPL	TO18	
47▼#	BC284B	500m	60M§	2.8m	§J	40	40	5.0	200m	50n	10Ø	10mØ	200 †△	80m	1.3k	1.8	15p	DPL	TO18	
48	FT3567	500m	60M§△	5.0m	♦J	80	40	5.0		.05uØ	1.0Ø	150mØ	80 †#				16p$	DPE	R124 c	A
49	FT3568	500m	60M§△	5.0m	♦J	80	60	5.0		.05uØ	1.0Ø	150mØ	80 †#				13p$	DPE	R124 c	A
50	FT3569	500m	60M§△	5.0m	♦J	80	40	5.0		.05uØ	1.0Ø	150mØ	150 †#				16p$	DPE	R124 c	A
51	MPS6560	500m	60M§△	4.5m	†J	25	25	4.0	600m	.10uØ	1.0Ø	10mØ	35 †△				30pØ	ANT	TO92	A
52	MPS6561	500m	60M§△	4.5m	†J	20	20	4.0	600m	.10uØ	1.0Ø	10mØ	35 †△				30pØ	ANT	TO92	A
53	2N5183	500m	62M§Ø	3.3m	§S	18	18	7.0	1.0	500nØ	12Ø	10mØ	70 Ø				20p$		TO104	AØ
54	2N912	500m	64M△	2.8m	§S	100	60	7.0		25nØ	5.0Ø	1.0mØ	38	130nØb	26	300m	15pØ	PL	TO18	AØ
55	2N707A	500m	70.M△	3.3m	§S	70	40	5.0	100m	1.0uØ	1.0Ø	10mØ	9 †#△				6pØ		TO18	AØ
56	2N715	500m	70.M△	3.3m	§S	50	35	5.0	100m	10u	10Ø	15mØ	10 †#△				6pØ		TO18	AØ
57	2N716	500m	70.M△	3.3m	§S	70	40	5.0	100m	10u	10Ø	15mØ	10 †#△				6pØ		TO18	AØ
58	2N2437	500m	70M§△	2.8m	§J	100	75	7.0	500m	1.0nØ	10Ø	5.0mØ	20 △	1.0uØb	30 Ø	1.8 Ø	15pØ	Ø	TO46	AØ
59#	2SC847	500m	70.M§	3.3m	§J	30	20	5.0	200m	.50uØ	4.0Ø	10mØ	160 †				10p	PL	TO18	
60#	2SC850†	500m	70.M§	3.3m	§J	50	30	7.0	500m	.50uØ	4.0Ø	10mØ	160 †					PL	TO18	
61	2N720A	500m	80M△	2.8m	§S	120	80	7.0		10nØ	10Ø	150mØ	40 †△#	500nØb	30 Ø	1.3 Ø	15pØ	PLΔ	TO18	AØ
62♦	JAN2N1051	500m	80M§△	4.0m	$S		40	8.0	100m	100nØ	5.0Ø	5.0	30 △		15 Øb		7.0pØ		R081a	A
63	2N2433	500m	80M§△	2.8m	§J	75	45	7.0	1.0	1.0nØ	10Ø	5.0mØ	35 △	1.0uØb	30 Ø	1.5 Ø	20pØ	Δ	TO46	AØ
64	2N2435	500m	80M§△	2.8m	§J	120	80	7.0	500m	1.0nØ	10Ø	5.0mØ	45 △	500nØb	30 Ø	1.5 Ø	15pØ	Δ	TO46	AØ
65	2N2438	500m	80M§△	2.8m	§J	100	75	7.0	500m	1.0nØ	10Ø	5.0mØ	40 △	1.0uØb	30 Ø	1.8 Ø	15pØ	Ø	TO46	AØ
66	2N3701	500m	80M§△	2.9m	§S	140	80	7.0	1	.01uØ	5.0Ø	1.0mØ	30 △				12pØ	Ø	TO18	AØ
67▼	D33D28	500m	80M§△	4.5m	†J	70	60	5.0	750m		2.0Ø	2.0mØ	40 △†				15p$Ø	PE†	TO98	B
68	2N2434	500m	90M§△	2.8m	§J	75	45	7.0	1.0	1.0nØ	10Ø	5.0mØ	70 △	1.0uØb	30 Ø	2.5 Ø	20pØ	Δ	TO46	AØ
69	2N2436	500m	90M§△	2.8m	§J	120	80	7.0	500m	1.0nØ	10Ø	5.0mØ	70 △	500nØb	30 Ø	2.5 Ø	15pØ	Δ	TO46	AØ
70	2N2439	500m	90M§△	2.8m	§J	100	75	7.0	500m	1.0nØ	10Ø	5.0mØ	80 △	1.0uØb	30 Ø	2.5 Ø	15pØ	Ø	TO46	AØ
71#	BSX33†	500m	94M§	2.8m	§J	70	40	7.0		15n§	10Ø	10mØ	70 †#				12p	DPE	TO18	Ø
72	2N910	500m	96M△	2.8m	§S	100	60	7.0		25nØ	5.0Ø	1.0mØ	125	130nØb	26	750m	15pØ	PL	TO18	AØ
73	2N736A	500m	100M§△	3.3m	§S	80	60	8.0	100m	.50uØ	5.0Ø	1.0m	60 △		1.8kØ		6pØ		TO18	AØ
74	2N736B	500m	100M§△	2.9m	§S	80	60	8.0	100m	5nØ	5.0Ø	1.0m	60 △		100 Ø				TO18	AØ
75	2N740A	500m	100M§△	3.4m	§S	125	80	8.0	50m	5nØ	5.0Ø	5.0mØ	10 △		1.8kØ		6pØ		TO18	AØ
76	2N756A	500m	100M		§J	60	60	6.0	100m	100n	5.0Ø	1.0m	19	1.0uØb	80 Ø	10 Ø	5.0p	ME	TO18	AØ
77	2N757A	500m	100M		§J	60	60	6.0	100m	100n	5.0Ø	1.0m	29	1.0uØb	80 Ø	10 Ø	5.0p	ME	TO18	AØ
78	2N758A	500m	100M	2.8m	§J	60	60	8.0	100m	100nØ	5.0Ø	1.0m	54	1.0uØb	80 Ø	10 Ø	5.0p	ME	TO18	AØ
79	2N759A	500m	100M		§J	60	60	8.0	100m	100n	5.0Ø	1.0m	63	1.0uØb	80 Ø	10 Ø	5.0p	ME	TO18	AØ
80	2N760A	500m	100M		§J	60	60	8.0	100m	100n	5.0Ø	1.0m	204	1.0uØb	80 Ø	10 Ø	5.0p	ME	TO18	AØ
81	2N761	500m	100M	2.8m	§A	45	30	6.0	100m	200n	20	1.0mØ	19 △	1.0uØb	80 Ø	20 Ø	4.0p	ME	TO18	AØ
82	2N762	500m	100M	2.8m	§A	45	30	6.0	100m	200n	20	1.0mØ	39 △	1.0uØb	80 Ø	20 Ø	4.0p	ME	TO18	AØ
83	2N1139	500m$	100M§△	6.7m	§S	15	15	3.0	100m	5.0u	6.0Ø	10mØ	20 †△				12pØ	Δ	TO5	AØ
84	2N2331Ø	500m	100M§△	3.3m	§S	30	20	5.0	500m	1.0nØ	1.0Ø	10mØ	50 †△				10pØ		TO18	AØ
85	2N2897	500m	100M§	2.9m	§J	60	45	7.0	1	.05uØ	5.0Ø	5.0mØ	50 △				15pØ	PLØ	TO18	AØ
86	2N2900	500m	100M§	2.9m	§J	60	45	1.0	1	.05uØ	5.0Ø	5.0mØ	50 △				15pØ	PLØ	TO46	AØ
87	2N3082Ø	500m	100M§△	2.9m	§J	25	7.0	7.0	100m	.01uØ	5.0Ø	.25mØ	100 †△				8pØ		L1	
88	2N3083Ø	500m	100M§△	2.9m	§J	25	7.0	7.0	100m	.01uØ	5.0Ø	.25mØ	100 †△				8pØ		L1	
89	2N3700	500m	100M§△	2.9m	§S	140	80	7.0	1	.01uØ	5.0Ø	1.0mØ	80 △				12pØ	Ø	TO18	AØ
90	JAN2N3700	500m	100M§△	2.8m	§J	140	80	7.0	1.0	10nØ	5.0Ø	1.0mØ	80 △				12pØ	Ø	TO18	AØ
91#	2SC273	500m	100M§△		§J	120	120	5.0	1	1.0uØ	30Ø	3.0m	50				2.5p	PL	TO18	
92	40084	500m	100M§△	3.3m	§J	60	40	5.0	1.0m	.25uØ	10Ø	50mØ	5.0 △				15pØ	PLØ	TO18	AØ
93	40354	500m	100M§	3.3m	§J		150	5.0	50m	100nØ	10Ø	10mØ	55 †				2.8p$		R115a	AØ
94#	BFX70*	500m	100M§	2.8m	§J	100	60	7.0	500m	2.0nØ	5.0Ø	1.0mØ	80	9.0u	2.3k		12p	DPL*	L2b	
95#	BFX71*	500m	100M§	2.8m	§J	100	60	7.0	500m	10nØ	5.0Ø	1.0mØ	125	200nb	27	900m	12p	DPL*	L2b	
96#	BFX72*	500m	100M§	2.8m	§J	100	60	7.0	500m	10nØ	5.0Ø	1.0mØ	125	200nb	27	900m	12p	DPL*	L2b	
97#	BFX99*	500m	100M§	2.8m	§J	100	60	7.0	500m	2.0nØ	5.0Ø	1.0mØ	50 △	16 Ø	4.0kØ	10 Ø	12p	Ø	L2b	
98#	BSX70	500m	100M§△	2.8m	§J	75	30	7.0	500u	100n	5.0Ø	1.0mØ	40 △	500nØ	34 Ø	3.0	25p$Ø	PEΔ	TO18	A
99#	BSX71	500m	100M§△	2.8m	§J	75	30	7.0	500u	100n	5.0Ø	1.0mØ	50 △	500nØ	34 Ø	5.0	25p$Ø	PEØ	TO18	A
100▼	D33D21	500m	100M§△	4.5m	†J	35	25	5.0	750m		2.0Ø	2.0mØ	60M†△				15p$Ø		TO98	B
101▼	D33D24	500m	100M§△	4.5m	†J	50	40	5.0	750m		2.0Ø	2.0mØ	60 △†				15p$Ø	PE†	TO98	B
102▼	D33D29	500m	100M§△	4.5m	†J	70	60	5.0	750m		2.0Ø	2.0mØ	60 △†				15p$Ø	PE†	TO98	B
103#	NKT10339	500m	100M§	3.3m	§J	45	30	5.0	500m	.01uØ	10Ø	1.0mØ	50 †				10pØ		TO18	AØ
104#	NKT10439	500m	100M§	3.3m	§J	45	30	5.0	500m	.01uØ	10Ø	1.0mØ	100 †				10pØ		TO18	AØ
105	TN54	500m	100M§△	2.8m	§J	75	45	5.0	800m	10nØ	5.0Ø	1.0mØ	55	200nØb	35 Ø	1.2 Ø	8.0pØ	PEΔ	TO18	A
106	TN60†	500m	100M§△	2.8m	§J	40	30	5.0	800m	20nØ	5.0Ø	1.0mØ	140	100nb	27	3.2	8.0pØ	PEØ	TO18	A
107	TN62†	500m	100M§△	2.8m	§J	40	30	5.0	800m	20nØ	5.0Ø	1.0mØ	50	900nb	26	3.2	8.0pØ	PEØ	TO18	A
108	2N956	500m	110M△	2.8m	§J	75	50 §	7.0		10nØ	5.0Ø	5.0mØ	50 △#	500nØb	34 Ø	5.0 Ø	25pØ	Ø	TO18	AØ
109	2N2895	500m	120M§	2.9m	§J	120	65	7.0	1	2nØ	5.0Ø	5.0mØ	50 △				15pØ	PLØ	TO18	AØ
110	2N2896	500m	120M§	2.9m	§J	140	90	7.0	1	.01uØ	5.0Ø	5.0mØ	50 △				15pØ	PLØ	TO18	AØ

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T E M A X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N2898	500m	120M§	2.9m	§J	120	65	1.0	1	2nØ	5.0Ø	5.0mØ	50 Δ				15pØ	PLØ	TO46	AØ
2	2N2899	500m	120M§	2.9m	§J	140	90	1.0	1	.01uØ	5.0Ø	5.0mØ	50 Δ				15pØ	PLØ	TO46	AØ
3	2N4384	500m	120M§Ø	2.8m	§S	40	30	5.0	800m	10nØ	5.0Ø	1.0mØ	1.0kØ	200nØb	32 Ø		8.0pØ	Ø	TO18	AØ
4	2N4386	500m	120M§Ø	2.8m	§S	40	30	5.0	800m	10nØ	5.0Ø	1.0mØ	1.0kØ	200nØb	32 Ø		8.0pØ	Ø	TO18	AØ
5▼	D33D25	500m	120M§Δ	4.5m	†J	50	40	5.0	750m		2.0Ø	2.0mØ	100 Δ†				15p$Ø	PE†	TO98	B
6▼	D33D30	500m	120M§Δ	4.5m	†J	70	60	5.0	750m		2.0Ø	2.0mØ	100 Δ†				15p$Ø	PE†	TO98	B
7▼	D33D22	500m	135M§Δ	4.5m	†J	35	25	5.0	750m		2.0Ø	2.0mØ	150M†Δ				15p$Ø		TO98	B
8▼	D33D26	500m	135M§Δ	4.5m	†J	50	40	5.0	750m		2.0Ø	2.0mØ	150 Δ†				15p$Ø	PE†	TO98	B
9	2N2463	500m	150M§	3.4m	§J	100	60	8.0		2nØ	5.0Ø	5.0mØ	40 Δ	30u	800		5pØ	PL	TO18	A
10	2N2464	500m	150M§	3.4m	§J	100	60	8.0		2nØ	5.0Ø	5.0mØ	70 Δ	60u	1.2k		5pØ	PL	TO18	A
11	2N2465	500m	150M§	3.4m	§J	100	60	8.0		2nØ	5.0Ø	5.0mØ	120 Δ	90u	1.8k		5pØ	PL	TO18	A
12	2N2466	500m	150M§	3.4m	§J	100	60	8.0		2nØ	5.0Ø	5.0mØ	170 Δ	120u	2.4k		5pØ	PL	TO18	A
13#	2SC27	500m	150M	4.0m	§J	60			100m	1.0uØ	10Ø	10mØ	50				4.0p	ME	TO5	
14#	2SC797	500m	150M§	3.3m	§J	60	35	2.0	500m	5.0uØ	20Ø	15m	30				5.0p	PE	TO5	A
15▼	D33D27	500m	150M§Δ	4.5m	†J	50	40	5.0	750m		2.0Ø	2.0mØ	250 Δ†				15p$Ø	PE†	TO98	B
16#	2SC249	500m	170M§	2.0m	§J	70	60 §	5.0	70m	1.0uØ	6.0Ø	2.5m	60				3.2p	PL	TO5	
17	JAN2N1493	500m	175M§Δ	2.8m	§J	100	100 #	4.5		1.0uØ	20Ø	10m	50 †Δ				5.0pØ		R81a	A
18	2N752	500m	200M§Δ	2.9m	§J	85	45	8.0	100m	10uØ	10Ø	1.0mØ	40 Δ				5pØ		TO18	AØ
19	40458†	500m	200M§	3.3m	§J	60	40	8.0	1	.01uØ	12Ø	10mØ	175	75m	600	1.2	20p$	DPE	R123	
20♦#	BFS59	500m	200M§	3.3m	§A	60	30	5.0	1.0 #	100nØ	10Ø	10mØ	130	47u	450	1.5	15pØ	PL†	X59	F
21♦#	BFS60	500m	200M§	3.3m	§A	60	40	5.0	1.0 #	100nØ	10Ø	10mØ	130	47u	450	1.5	15pØ	PL†	X59	F
22♦#	BFS61	500m	200M§	3.3m	§A	80	60	5.0	1.0 #	100nØ	10Ø	10mØ	130	47u	450	1.5	15pØ	PL†	X59	F
23#	BFW32†	500m	200M§	4.0m	§A	50	30 §	5.0	700m	500nØ	10Ø	10mØ	40 Δ	250uØ	4.0kØ	6.0 Ø	7.0p	PEØ	TO18	AØ
24#	BSW26†	500m	200M§Δ	2.9m	§J	50	40	4.0	1	1.0uØ	2.0Ø	500mØ	20 †Δ				10pØ	PE	TO18	AØ
25	MD2218*	500m	200M§Δ	2.8m	§J	60	30	5.0	600m	20n#	10Ø	150mØ	40 †Δ#				8.0pØ	AN Δ	L66a	
26	MD2218A*	500m	200M§Δ	2.8m	§J	60	30	5.0	600m	20n#	10Ø	150mØ	40 †Δ#				8.0pØ	AN Δ	L66a	
27▼	MPSA05	500m	200M§	4.5m	†J	50	50	4.0	500m	100n	1.0Ø	10mØ	50 †Δ				6.0p	AN	TO92	A
28▼	MPSA06	500m	200M§	4.5m	†J	80	80	4.0	500m	100n	1.0Ø	10mØ	50 †Δ				6.0p	AN	TO92	A
29#	NKT12329	500m	200M§Δ	3.3m	§J	30	20	4.0	500m	.01uØ	10Ø	.10mØ	40 †				8pØ		TO18	AØ
30#	NKT12429	500m	200M§Δ	3.3m	§J	30	20	4.0	500m	.01uØ	10Ø	.10mØ	80 †				8pØ		TO18	AØ
31#	2SC796	500m	230M§	3.3m	§J	40	30	2.0	500m	5.0uØ	20Ø	15m	50				5.0p	PE	TO5	A
32	SE8040	500m	230M§	5.0m	♦J	30	30	6.0	1.0	50nØ	1.0Ø	150mØ	70 †#				9.0p$	DPL	R124c	A
33	2N1491	500m	250M	3.3m	§A	30	30	1.0	100m	10uØ	20Ø	15mØ	50				5.0p	DPL	TO39	AØ
34	2N2220	500m	250M§Δ	3.3m	§J	60	30	5.0	800m	10n	10Ø	1.0mØ	12 †Δ				8.0pØ		TO18	AØ
35	2N2221	500m	250M§Δ	3.3m	§J	60	30	5.0	800m	10n	10Ø	1.0mØ	25 †Δ				8.0pØ		TO18	AØ
36	JAN2N2221†	500m	250M§Δ	3.3m	§S	60	30	5.0	800m	10nØ	10Ø	1.0mØ	25 Δ				8.0pØ		TO18	AØ
37	2N2221A†	500m	250M§Δ	3.3m	§J	75	40	6.0	800m	.01uØ	10Ø	1.0mØ	30 Δ	15uØ	3.5kØ	5 Ø	8pØ	Ø	TO18	A
38	JAN2N2221A†	500m	250M§Δ	3.3m	§S	75	50	6.0	800m	10nØ	10Ø	1.0mØ	30 Δ				8.0pØ		TO18	AØ
39	2N2222	500m	250M§Δ	3.3m	§J	60	30	5.0	800m	10n	10Ø	1.0mØ	50 †Δ				8.0pØ		TO18	AØ
40	JAN2N2222†	500m	250M§Δ	3.3m	§S	60	30	5.0	800m	10nØ	10Ø	1.0mØ	50 Δ				8.0pØ		TO18	AØ
41	JAN2N2222A†	500m	250M§Δ	3.3m	§S	75	50	6.0	800m	10nØ	10Ø	1.0mØ	50 Δ				8.0pØ		TO18	AØ
42	2N2539†	500m	250M§Δ	2.9m	§J	60	30	5.0	800m	.25uØ	10Ø	1.0mØ	20 †Δ				8pØ		TO18	AØ
43	2N2540†	500m	250M§Δ	2.9m	§J	60	30	5.0	800m	.25uØ	10Ø	1.0mØ	35 †Δ				8pØ		TO18	AØ
44	2N2790†	500m	250M§Δ	3.3m	§J	75	35	5.0	800m	10nØ	20Ø	20mØ	30 Δ	200uØb	35 Ø	1.5 Ø	8.0pØ		TO18	AØ
45	2N2791†	500m	250M§Δ	3.3m	§J	75	35	5.0	800m	10nØ	20Ø	20mØ	75 Δ	200uØb	35 Ø	2.0 Ø	8.0pØ		TO18	AØ
46	2N2792†	500m	250M§Δ	3.3m	§J	75	35	5.0	800m	10nØ	20Ø	20mØ	50 Δ	200uØb	35 Ø	2.5 Ø	8.0pØ		TO18	AØ
47	2N3409*	500m	250M§Δ	2.9m	§S	60	30	5.0	500m	.01uØ	10Ø	1.0mØ	40 †Δ				8pØ	*	L2y	
48	2N3410*	500m	250M§Δ	2.9m	§S	60	30	5.0	500m	.01uØ	10Ø	1.0mØ	40 †Δ				8pØ	*	L2y	
49	2N3411*	500m	250M§Δ	2.9m	§S	60	30	5.0	500m	.01uØ	10Ø	1.0mØ	40 †Δ				8pØ	*	L2y	
50	2N3737†	500m	250M§Δ	2.9m	§S	75	50	5.0	1.5	.20u#Ø	1.0Ø	10mØ	35 †Δ				9pØ		TO46	AØ
51	JAN2N3737†	500m	250M§Δ	2.8m	§J	75	50 *	5.0	1.5	250nØ	1.0Ø	10mØ	35 †Δ				9.0pØ		TO46	AØ
52	2N4961†	500m	250M§Δ	4.5m	§J	80	80	6.5	1.0	10nØ	10Ø	1.0mØ	60 †Δ				15p$		TO39	AØ
53	2N4963†	500m	250M§Δ	2.8m	§J	80	80	6.5	1.0	10nØ	10Ø	1.0mØ	60 †Δ				15p$		TO18	AØ
54	2N5417§	500m	250M§Δ	3.3m	§S	40	35	3.0	500m	.01uØ	10Ø	1.0mØ	35 †Δ				8p$	Δ	TO39	AØ
55▼	JAN2N5581†	500m	250M§Δ	2.2m	§J	75	50	6.0	800m	10nØ	10Ø	1.0 Ø	30 Δ				8.0pØ		TO46	AØ
56▼	JAN2N5582†	500m	250M§Δ	2.2m	§J	75	50	6.0	800m	10nØ	10Ø	1.0 Ø	50 Δ				8.0pØ		TO46	AØ
57	40577	500m	250M§Δ	357u	§J		60	4.0	500m	.01uØ	5.0Ø	100mØ	50 †#Δ		50		6pØ		TO5	AØ
58#	BFX94	500m	250MΔ§	3.3m	§J	60	30	5.0	800m	.01uØ	10Ø	150mØ	40 †Δ#				8pØ	PE	TO18	AØ
59#	BFX95	500m	250MΔ§	3.3m	§J	60	30	5.0	800m	.01uØ	10Ø	150mØ	100 †Δ#				8pØ	PE	TO18	AØ
60#	BSW82	500m	250M§	3.3m	§J	40	25	5.0	500m#	100nØ	10Ø	150mØ	40 †Δ#				8.0pØ	PE	TO18	AØ
61#	BSW83	500m	250M§	3.3m	§J	40	25	5.0	500m#	100nØ	10Ø	150mØ	100 †Δ#				8.0pØ	PE	TO18	AØ
62#	BSW84	500m	250M§	3.3m	§J	75	40	5.0	500m#	10nØ	10Ø	150mØ	40 †Δ#				8.0pØ	PE	TO18	AØ
63#	BSW85	500m	250M§	3.3m	§J	75	40	5.0	500m#	10nØ	10Ø	150mØ	100 †Δ#				8.0pØ	PE	TO18	AØ
64#	BSX75†	500m	250M§Δ	1.7m	§A						1.0Ø	500mØ	20 Δ				8.0p	NPE	TO18	
65▼	MD1T2222	500m	250M§		§A	60	30	5.0	200m	20nØ	20Ø	20mØ	2.5 Δ				8.0pØ	Δ	TO122	P
66	MD2219*	500m	250M§Δ	2.8m	§J	60	30	5.0	600m	20n#	10Ø	150mØ	100 †Δ#				8.0pØ	AN Δ	L66a	
67	MD3725*	500m	250M§Δ	2.9m	§J	65	40	6.0	1	1.7uØ	1.0Ø	100mØ	50 †Δ				10pØ	AN Δ	L2t	
68	2N1492	500m	275M	3.3m	§A	60	60	2.0	100m	10uØ	20Ø	15mØ	50				5.0p	DPL	TO39	AØ
69#	2SC30	500m	280M§		§J	60	30	5.0	80m	.10u	10Ø	10m	45				4.0p	PE	TO5	
70	2N1493	500m	300M	3.3m	§A	100	100	4.5	100m	10uØ	20Ø	15mØ	50				5.0p	DPL	TO39	AØ
71	2N2222A†	500m	300M§Δ	3.3m	§J	75	40	6.0	800m	.01uØ	10Ø	1.0mØ	50 Δ	35uØ	8.0kØ	8 Ø	8pØ	Ø	TO18	AØ
72	2N2222B†	500m	300M§Δ	3.3m	§S	75	40	6.0	1	.01uØ	10Ø	1.0mØ	50 Δ	35uØ	8kØ	8 Ø	8pØ	Ø	TO18	AØ
73	2N3736†	500m	300M§Δ	2.9m	§S	50	30	5.0	1.5	.20u#Ø	1.0Ø	10mØ	35 †Δ				9pØ		TO46	AØ
74#	2SC238	500m	300M§	4.0m	§J	30		3.5	100m	.10uØ	6.0Ø	1.0m	80				5.0p	PL	TO5	
75	MD2219A*	500m	300M§Δ	2.8m	§J	75	40	6.0	600m	20n#	10Ø	150mØ	100 †Δ#				8.0pØ	AN Δ	L66a	
76	SE8012	500m	300M§Δ	5.0m	♦J	100	60 *Ø	6.0	500m	.50u§	1.0Ø	100mØ	40 †#Δ				9p$Ø	DPE	TO105	A
77#	2SC285	500m	320M§	4.0m	§J	50			200m	.10uØ	10Ø	10m	60				3.5p	PE	TO5	
78#	2SC285A	500m	320M§	4.0m	§J	50			200m	.10uØ	10Ø	10m	60				3.5p	PE	TO5	
79#	2SC52†	500m	350M§	4.0m	§J	40		5.0	100m	30nØ	6.0Ø	1.0mØ	50	100nb	28	1.5	4.0p	PL Δ	TO5	
80▼	MPSH02	500m	375M§Δ	4.5m	†J	20	20	3.0		50nØ	10Ø	4.0mØ	20 †Δ				500f$Ø	AN Ø	TO92	C
81#	2N2220A	500m	400M§	3.3m	§J	75	40	6.0		.01uØ	10Ø	150mØ	40 †#				4.0p		TO18	A
82	SE6020A†	500m	400M§	5.0m	♦J	60	60	6.5	1	.10uØ	10Ø	1.0mØ	100 †				11p$	DPE	TO105	A
83	SE6021A†	500m	400M§	5.0m	♦J	80	80	6.5	1	.10uØ	10Ø	1.0mØ	120 †				11p$	DPE	TO105	A
84▼	MPSH32	500m	440M§	4.5m	†J	40	30	4.0		50nØ	5.0Ø	4.0mØ	35 †				200f$	AN Ø	TO92	C
85	MD2369*	500m	500M§Δ	2.8m	§J	40	15	5.0	500m	30nØ	1.0Ø	10mØ	40 †Δ#				4.0pØ	AN Δ	L66a	
86	MD2369A*	500m	500M§Δ	2.8m	§J	40	15	5.0	500m	30nØ	1.0Ø	10mØ	40 †Δ#				4.0pØ	AN Δ	L66a	
87	MD2369B*	500m	500M§Δ	2.8m	§J	40	15	5.0	500m	30nØ	1.0Ø	10mØ	40 †Δ#				4.0pØ	AN Δ	L66a	
88	TIS71	500m$	1.5G§Δ		§	25	15	1.0	50m	1.0u§	15Ø	15mØ	15 †Δ				1.0p$Ø	PE	u26	F
89	TIS72	500m$	1.5G§Δ		§	25	15	1.0	50m	1.0u§	15Ø	15mØ	15 †Δ				1.0p$Ø	PE	u26	F
90	JAN2N2060*	540m	60M§Δ	8.3m	§J	100	60	7.0		2.0nØ	5.0Ø	1.0mØ	50 Δ	16uØ	4.0kØ		15pØ	Ø	L2b	
91	2N3402	560m		4.2m	§J	25	25	5.0	500m	.10u	4.5Ø	2.0mØ	150 †					PE	X28	
92	2N3403	560m		4.2m	§J	25	25	5.0	500m	.10u	4.5Ø	2.0mØ	350 †					PE	X28	
93	2N3404	560m		4.2m	§J	50	50	5.0	500m	.10u	4.5Ø	2.0mØ	150 †					PE	X28	
94	2N3405	560m		4.2m	§J	50	50	5.0	500m	.10u	4.5Ø	2.0mØ	350 †					PE	X28	
95	2N4425	560m		4.5m	§J	40	40	5.0	500m	.10uØ	4.5Ø	2.0mØ	180 Δ						X28	
96	CI3402	560m		4.1m		25	25	5.0	500m	100n	4.5Ø	2.0mØ	150 †					DPL†	R127a	D
97	CI3403	560m		4.1m		25	25	5.0	500m	100n	4.5Ø	2.0mØ	350 †					DPL†	R127a	D
98	CI3404	560m		4.1m		50	50	5.0	500m	100n	4.5Ø	2.0mØ	150 †					DPL†	R127a	D
99	CI3405	560m		4.1m		50	50	5.0	500m	100n	4.5Ø	2.0mØ	350 †					DPL†	R127a	D
100	CI4425	560m		4.5m		40	40	5.0	500m	100n	4.5Ø	2.0mØ	180					DPL†	R127	D
101	CS3402	560m		4.2m		25	25	5.0	500m	.10u	4.5Ø	2.0mØ	150 †					PE	R97a	
102	CS3403	560m		4.5m	§J	25	25	5.0		100nØ	4.5Ø	2.0mØ	180 Δ					†		
103	CS3404	560m		4.2m		50	50	5.0	500m	.10u	4.5Ø	2.0mØ	150 †					PE	R97a	
104	CS3405	560m		4.2m		50	50	5.0	500m	.10u	4.5Ø	2.0mØ	350 †					PE	R97a	
105	CS4425	560m		4.5m		40	40	5.0	500m	.10u	4.5Ø	2.0mØ	180						R97a	
106#	BF114	565m	80M§	4.2m	§J	135	135 §	3.0	40m	100nØ	10Ø	10mØ	20 †Δ				3.5p	PL	TO5	Ø
107#	BSX72†	575m	250M§Δ	1.7m	§A						1.0Ø	150mØ	20 Δ				8.0p	NPE	TO5	
108	2N4270	580mØ		3.3m	§S	200	140	15	30m	1.0uØ	10Ø	10mØ	200 †Ø				5pØ		TO5	A
109#	BC100†	590m*	10.M§	4.5m	§J	350	300	7.0	150m	.06uØ	20Ø	10mØ	40 †					ME	TO5	AØ
110	2N545†	600m$		7.7m	§S	60	60	10	500m	25u	6.0Ø	500mØ	15 †Δ				100pØ		TO5	AØ

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC-TURE	DWG. No.	L C E O A D D E
1	JAN2N545†	600m$		7.6m	§S	60	60	10	500m	25u	6.0Ø	500mØ	15 †Δ				100pⷯ		TO5	AØ
2	2N546†	600m$		5.6m	§S	30	30	6.0	800m	15u	6.0Ø	500mØ	15 †Δ				100pⷯ		TO5	AØ
3	2N1564	600m		4.0m	§S	80	60	5.0	50m	1.0uØ	5.0Ø	5.0m	20 Δ		1.2k		10pⷯ		TO5	AØ
4	2N1565	600m		4.0m	§S	80	60	5.0	50m	1.0uØ	5.0Ø	5.0m	40 Δ		1.5k		10pⷯ		TO5	AØ
5	2N1566	600m		4.0m	§S	80	60	5.0	50m	1.0uØ	5.0Ø	5.0m	80 Δ		1.8k		10pⷯ		TO5	AØ
6	2N1572	600m		4.0m	§S	125	80	5.0	50m	1.0uØ	5.0Ø	5.0m	20 Δ		1.2k		10pⷯ		TO5	AØ
7	2N1573	600m		4.0m	§S	125	80	5.0	50m	1.0uØ	5.0Ø	5.0m	40 Δ		1.5k		10pⷯ		TO5	AØ
8	2N1574	600m		4.0m	§S	125	80	5.0	50m	1.0uØ	5.0Ø	5.0m	80 Δ		1.8k		10pⷯ		TO5	AØ
9	2N1990	600m		4.8m	§J	100		3.0	1	10u#	10Ø	30mØ	20 †Δ#						TO5	AØ
10	2N1990S	600m		4.7m	§S	100		3.0		1.0u#	.50Ø	2.0mØ	25 Δ					PL	TO5	Ø
11	4C43	600m		5.8m	♦J	80	75 #	1.0	60m	2.0uØ	5.0Ø	3.0mØ	10 †Δ	200nb	50	2.0		GD	R133b	A
12▼#	SL301C*	600m		4.0m	§A	25	10	4.3	50m		5.0Ø	1.0mØ	20 †Δ						L44a	
13▼#	SL301CE*	600m		4.0m	§A	25	10	4.3	50m		5.0Ø	1.0mØ	20 †Δ						L44b	
14	TI481	600m		5.8m	♦J	80	70	1.0	6.0m	2.0uØ	10	5.0m	9.0 Δ	1.0ub	12	2.0		G	TO11	
15▼	TZ7000	600m					30				5.0Ø	350mØ	50 †Δ				15p$		X93	A
16▼	TZ7001	600m					30				5.0Ø	350mØ	100 †Δ				15p$		X93	A
17▼	TZ7002	600m					40				5.0Ø	350mØ	50 †Δ				15p$		X93	A
18▼	TZ7003	600m					40				5.0Ø	350mØ	100 †Δ				15p$		X93	A
19#	DT1610†	600m	.50M	5.0mØ	♦S	25	15	4.0	250m	8.0u	6.0Ø	200mØ	10 †Δ						TO5	
20	2N2858†	600m	1.0M$Δ	5.9m	§J	100	80	10	3		4.0Ø	1 Ø	20 †Δ					D	TO5	AØ
21	2N2859†	600m	1.0M$Δ	5.9m	§J	120	100	10	3		4.0Ø	1 Ø	20 †Δ					D	TO5	AØ
22#	DT1003†	600m	1.0M$	6.2m	♦A	200	200	5.0	300m	50u	6.0Ø	200mØ	36 †ⷯ					D	TO5	Ø
23	TI496	600m	1.0M	5.9m	♦J	70	65 Ø	1.0	60m	2.0uØ	5.0Ø	3.0mØ	10 †Δ					G	TO11	A
24	2N1615	600m	2.0M$Δ	5.6m	§S	100	100	8.0	200m	2.0uØ	10Ø	5.0mØ	25 †Δ				100pⷯ		TO5	AØ
25	2N2038	600m$	2.0M$Δ	5.6m	§S	45	45	4.0	500m	15uØ	6.0Ø	200mØ	12 †Δ				100pⷯ		TO5	AØ
26	2N2039	600m$	2.0M$Δ	5.6m	§S	75	75	4.0	500m	15uØ	6.0Ø	200mØ	12 †Δ				100pⷯ		TO5	AØ
27	2N2040	600m$	2.0M$Δ	5.6m	§S	45	45	4.0	500m	15uØ	6.0Ø	200mØ	30 †Δ				100pⷯ		TO5	AØ
28	2N2041	600m$	2.0M$Δ	5.6m	§S	75	75	4.0	500m	15uØ	6.0Ø	200mØ	30 †Δ				100pⷯ		TO5	AØ
29	2N551	600m$	3.0M$Δ	5.6m	§S	60	60	6.0	200m	15u	6.0Ø	50mØ	20 †Δ				100pⷯ		TO5	AØ
30	2N552	600m$	3.0M$Δ	5.6m	§S	30	30	6.0	200m	15u	6.0Ø	50mØ	20 †Δ				100pⷯ		TO5	AØ
31	2N1055	600m$	3.0M$Δ	5.6m	§S	100	100	6.0	200m	15u	6.0	50mØ	20 †Δ		500 ⷯ		100pⷯ		TO5	AØ
32	2N547	600m$	4.0M$Δ	5.6m	§S	60	60	6.0	800m	15u	6.0Ø	500mØ	20 †Δ				100pⷯ		TO5	AØ
33	2N548	600m$	4.0M$Δ	5.6m	§S	30	30	6.0	800m	15u	6.0Ø	500mØ	20 †Δ				100pⷯ		TO5	AØ
34	2N549	600m$	4.0M$Δ	5.6m	§S	60	60	6.0	800m	15u	6.0Ø	200mØ	20 †Δ				100pⷯ		TO5	AØ
35	2N550	600m$	4.0M$Δ	5.6m	§S	30	30	6.0	800m	15u	6.0Ø	200mØ	20 †Δ				100pⷯ		TO5	AØ
36	2N1052	600m$	4.0M	3.4m	§J	180	180 Ø	6.0		10u	6.0Ø	200mØ	35 †				50p	ME	TO5	AØ
37	2N1053	600m$	4.0M	3.4m	§J	200	200 Ø	6.0		10u	6.0Ø	200mØ	35 †				50p	ME	TO5	AØ
38	2N1054	600m$	4.0M	3.4m	§J	125	115	6.0		5.0u	20	100m	12				50p	DΔ	TO5	AØ
39	2N1117	600m$	4.0M$Δ	5.6m	§S	60	60	6.0	800m	15u	6.0Ø	200mØ	40 †Δ				100pⷯ		TO5	AØ
40	2N2198	600m	4.0M$Δ	5.6m	§S	80	80	7.0	200m	15u	5.0Ø	100mØ	35 †Δ				120pⷯ		TO5	AØ
41#	2S711	600m	5.0M	833u	#A	40	40	8.0	200m	10uØ	10	200m	20			8.0		D	TO5	
42#	2S712	600m	5.0M	833u	#A	40	40	8.0	200m	10uØ	10	200m	40			4.0		D	TO5	
43#	N1X	600m	5.0M	4.0m		80	75 §	5.0	50m	1.0u	5.0Ø	2.0mØ	20					ME	TO5	
44	2N1116	600m$	6.0M$Δ	5.6m	§S	60	60	6.0	800m	15u	6.0	500mØ	40 †Δ				100pⷯ		TO5	AØ
45#	2SC64	600m	20M§Δ	3.4m	§J	80	80 §	3.0	50m	1.5uØ	20Ø	5.0mØ	50				10pⷯ	ME	TO5	
46#	2SC65	600m	20M§Δ	3.4m	§J	130	130 §	3.0	50m	1.5uØ	20Ø	5.0mØ	20				10pⷯ	ME	TO5	
47#	2SC66	600m	30M§Δ	3.4m	§J	130	130 §	3.0	50m	1.5uØ	20Ø	5.0mØ	70				10pⷯ	ME	TO5	
48	PT886	600m	30.M	4.0m	§J	25	22 §	5.0	500m	300u			80 ⷯ					PL	TO5	AØ
49	2N3388†	600m	36M§Δ	4.0m	$A	125	100	6.0	2.5m	2.0uØ	1.5Ø	2.5mØ	60 †Δ				35pⷯ		TO5	AØ
50	2N3389†	600m	36M§Δ	4.0m	$A	195	160	6.0	7.0m	2.0uØ	1.5Ø	7.0mØ	60 †Δ				35pⷯ		TO5	AØ
51	2N1953	600m	40M§Δ	4.0m	§J	20	20 Ø	3.0	1	.70uØ	2.0	10mØ	15 †Δ				35pⷯ		TO5	AØ
52	2N1983	600m	40M§Δ	4.7m	$J	50	25	5.0	1.0	5.0uØ	5.0Ø	1.0mØ	70 Δ	1.0uⷯb	30 ⷯ	7.0 ⷯ	45pⷯ		TO5	AØ
53	2N1984	600m	40M§Δ	4.7m	$J	50	25	5.0	1.0	5.0uØ	5.0Ø	1.0mØ	35 Δ	1.0uⷯb	30 ⷯ	5.0 ⷯ	45pⷯ		TO5	AØ
54	2N1985	600m	40M§Δ	4.7m	$J	50	25	5.0	1.0	5.0uØ	5.0Ø	1.0mØ	15 Δ	1.5uⷯb	30 ⷯ	5.0 ⷯ	45pⷯ		TO5	AØ
55	2N1986	600m	40M§Δ	5.0m	$J	50	25	5.0		5.0uØ	10Ø	150mØ	60 †#Δ				35pⷯ		TO5	AØ
56	2N1987	600m	40M§Δ	4.8m	$J	50	25	5.0		5.0uØ	10Ø	150mØ	20 †#Δ				35pⷯ		TO5	AØ
57	2N1988	600m	40M§Δ	4.7m	$J	100	45	5.0	1.0	5.0uØ	5.0Ø	1.0mØ	20 Δ	1.0uⷯb	30 ⷯ	1.5 ⷯ	20pⷯ		TO5	AØ
58	2N1989	600m	40M§Δ	4.7m	J	100	45	5.0	1.0	5.0uØ	5.0Ø	1.0mØ	10 Δ	1.0uⷯb	30 ⷯ	1.5 ⷯ	20pⷯ		TO5	AØ
59#	2N5073	600m	40M§Δ	4.0m	§S	180	120	6.0	400m	.01uØ	10Ø	6.0mØ	20 Δ				25p$		TO5	AØ
60	TI482	600m	40M§Δ	5.0m	§J	20	20	5.0	500m	2.0u	10Ø	150mØ	20 †Δ				35pⷯ	PL	TO5	AØ
61	TI483	600m	40M§Δ	5.0m	§J	40	20	5.0	500m	2.0u	10Ø	150mØ	20 †Δ				35pⷯ	PL	TO5	AØ
62	TI484	600m	40M§Δ	5.0m	§J	40	20	5.0	500m	2.0uØ	10Ø	150mØ	40 †Δ				35pⷯ	PL	TO5	AØ
63	JAN2N696†	600m	50M§Δ	4.0m	§S	60	40 §	5.0		100u	10Ø	150mØ	20 †Δ#				25pⷯ		TO5	AØ
64	2N699	600m	50M§Δ	4.0m	§J	120	80 §*	5.0		2.0uØ	5.0Ø	1.0mØ	35 Δ	500nⷯb	30 ⷯ	2.5 ⷯ		Δ	TO5	AØ
65	2N1409	600m	50M§Δ	4.0m	§J	30	25 §	4.0		10u	10Ø	150mØ	15 †Δ				35pⷯ		TO5	AØ
66	2N1410	600m	50M§Δ	4.0m	§J	45	30 §	4.0		10u	10Ø	150mØ	30 †Δ				24pⷯ		TO5	AØ
67	2N1420	600m	50M§Δ	4.0m	§S	60	30 §	5.0	1	1.0uØ	10Ø	150mØ	100 †#Δ				35pⷯ	Δ	TO5	AØ
68	2N1507	600m	50M§Δ	4.0m	§J	60	30 §	5.0	1	1.0u	10Ø	150mØ	150 †#				35pⷯ	PL	TO5	AØ
69	2N1972	600m	50M§Δ	4.0m	§J	60	30 §	5.0		1.0uØ	5.0Ø	1.0mØ	40 Δ	500nⷯb	35 ⷯ	8.0 ⷯ	35pⷯ		TO5	AØ
70	2N2195	600m	50M§Δ	3.4m	§J	45	25	5.0	1	.10uØ	10Ø	150mØ	20 †Δ#				20pⷯ	Δ	TO5	AØ
71	2N2195A	600m	50M§Δ	3.4m	§J	45	25	5.0	1	.10uØ	10Ø	150mØ	20 †#Δ				20pⷯ		TO5	AØ
72	2N2195B	600m	50M§Δ	3.4m	§J	45	25	5.0	1	.01uØ	10Ø	150mØ	20 †#Δ				20pⷯ		TO5	AØ
73	2N2236†	600m	50M§Δ	5.0m	$S	40	20	6.0	500m	.05uØ	1.0Ø	100mØ	15 †#Δ				35pⷯ		TO5	AØ
74	2N2240	600m	50M§Δ	3.4m	§J	25	20	5.0	500m	25n	5.0Ø	1.0mØ	40 †Δ				35pⷯ	Δ	TO5	AØ
75	2N2241	600m	50M§Δ	3.4m	§J	25	20	5.0	500m	25n	5.0Ø	1.0mØ	100 †Δ				35pⷯ	Δ	TO5	AØ
76	2N2356Ø	600m	50M§Δ	3.4m	§J	25		7.0	500m	10n							20pⷯ	*	L6	
77#	2SC482	600m#	50M§Δ	4.8m	§J	40	32	5.0	600m	1.0uØ	2.0Ø	150mØ	30 †*Δ				15p	PE	TO39	AØ
78	BFX15*	600m	50M§Δ	2.9m	§J	80		5.0		.01uØ	5.0Ø	1.0mØ	30 Δ				15pⷯ	PL*	L2d	
79	TRS120	600m	50M§Δ	4.0m	§J	120	120 §	6.0		3.0uØ	4.0Ø	50mØ	30 †#Δ				40pⷯ		TO5	A
80	TRS140	600m	50M§Δ	4.0m	§J	140	140 §	6.0		3.0uØ	4.0Ø	50mØ	30 †#Δ				40pⷯ		TO5	A
81	TRS160	600m	50M§Δ	4.0m	§J	160	160 §	6.0		3.0uØ	4.0Ø	50mØ	30 †#Δ				40pⷯ		TO5	A
82	TRS180	600m	50M§Δ	4.0m	§J	180	180 §	6.0		3.0uØ	4.0Ø	50mØ	30 †#Δ				40pⷯ		TO5	A
83	TRS200	600m	50M§Δ	4.0m	§J	200	200 §	6.0		2.0uØ	4.0Ø	50mØ	20 †#Δ				40pⷯ		TO5	A
84	TRS225	600m	50M§Δ	4.0m	§J	225	225 §	6.0		3.0uØ	4.0Ø	50mØ	22 †#Δ				40pⷯ		TO5	A
85	TRS250	600m	50M§Δ	4.0m	§J	250	250 §	6.0		2.0uØ	4.0Ø	50mØ	20 †#Δ				40pⷯ		TO5	A
86	TRS275	600m	50M§Δ	4.0m	§J	275	275 §	6.0		3.0uØ	4.0Ø	50mØ	22 †#Δ				40pⷯ		TO5	A
87	TRS301	600m	50M§Δ	4.0m	§J	300	300 §	6.0		2.0uØ	4.0Ø	50mØ	30 †#Δ				40pⷯ		TO5	A
88	TRS325	600m	50M§Δ	4.0m	§J	325	325 §	6.0		3.0uØ	4.0Ø	50mØ	22 †#Δ				40pⷯ		TO5	A
89	TRS350	600m	50M§Δ	4.0m	§J	350	350 §	6.0		2.0uØ	4.0Ø	50mØ	20 †#Δ				40pⷯ		TO5	A
90	TRS375	600m	50M§Δ	4.0m	§J	375	375 §	6.0		3.0uØ	4.0Ø	50mØ	22 †#Δ				40pⷯ		TO5	A
91	TRS401	600m	50M§Δ	4.0m	§J	400	400 §	6.0		2.0uØ	4.0Ø	50mØ	30 †#Δ				40pⷯ		TO5	A
92	TRS425	600m	50M§Δ	4.0m	§J	425	425 §	6.0		3.0uØ	4.0Ø	50mØ	22 †#Δ				40pⷯ		TO5	A
93	TRS450	600m	50M§Δ	4.0m	§A	450	450 §	6.0		2.0uØ	4.0Ø	50mØ	65 †#				14p		TO5	A
94	TRS451	600m	50M§Δ	4.0m	§J	450	450 §	6.0		2.0uØ	4.0Ø	50mØ	30 †#Δ				40pⷯ		TO5	A
95	TRS475	600m	50M§Δ	4.0m	§J	475	475 §	6.0		2.0uØ	4.0Ø	50mØ	22 †#Δ				40pⷯ		TO5	A
96	TRS501	600m	50M§Δ	4.0m	§J	500	500 §	6.0		2.0uØ	4.0Ø	50mØ	30 †#Δ				40pⷯ		TO5	A
97	TRS525	600m	50M§Δ	4.0m	§J	525	525 §	6.0		2.0uØ	4.0Ø	50mØ	22 †#Δ				40pⷯ		TO5	A
98	TRS550	600m	50M§Δ	4.0m	§J	550	550 §	6.0		2.0uØ	4.0Ø	50mØ	20 †#Δ				40pⷯ		TO5	A
99	TRS575	600m	50M§Δ	4.0m	§J	575	575 §	6.0		2.0uØ	4.0Ø	50mØ	22 †#Δ				40pⷯ		TO5	A
100	TRS601	600m	50M§Δ	4.0m	§J	600	600 §	6.0		2.0uØ	4.0Ø	50mØ	30 †#Δ				40pⷯ		TO5	A
101	TRS650	600m	50M§Δ	4.0m	§A	650	650 §	6.0		10uØ	5.0Ø	25mØ	25 †#Δ				14p		TO5	A
102	TRS701	600m	50M§Δ	4.0m	§A	700	700 §	6.0		10uØ	5.0Ø	25mØ	25 †#Δ				14p		TO5	A
103	TRS750	600m	50M§Δ	4.0m	§A	750	750 §	6.0		10uØ	5.0Ø	25mØ	25 †#Δ				14p		TO5	AØ
104	TRS801	600m	50M§Δ	4.0m	§A	800	800 §			10uØ	5.0Ø	25mØ	25 †#Δ				14p		TO5	AØ
105	JAN2N697†	600m	60M§Δ	4.0m	§S	60	40 §	5.0		100u	10Ø	150mØ	40 †Δ#				25pⷯ		TO5	AØ
106	2N1944	600m	60M§Δ	4.0m	§J	20	20 §	5.0		1.0uØ	2.0Ø	1.0mØ	300 †				20p	ME	TO5	AØ
107	2N1945	600m	60M§Δ	4.0m	§J	30	30 §	8.0		1.0uØ	2.0Ø	1.0mØ	300 †				20p	ME	TO5	AØ
108	2N1946	600m	60M§Δ	4.0m	§J	40	40 §	10		1.0uØ	2.0Ø	1.0mØ	300 †				20p	ME	TO5	AØ
109	2N1947	600m	60M§Δ	4.0m	§J	20	20 §	5.0		1.0uØ	2.0Ø	100mØ	650 †				20p	ME	TO5	AØ
110	2N1948	600m	60M§Δ	4.0m	§J	30	30 §	8.0		1.0uØ	2.0Ø	100mØ	650 †				20p	ME	TO5	AØ

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O D E
1	2N1949	600m	60M§Δ	4.0m	§J	40	40 §	10		1.0uØ	2.0Ø	100mØ	650 †				20p	ME	TO5		AØ
2	2N1950	600m	60M§Δ	4.0m	§J	20	20 §	5.0		1.0uØ	2.0Ø	100mØ	375 †				20p	ME	TO5		AØ
3	2N1951	600m	60M§Δ	4.0m	§J	30	30 §	8.0		1.0uØ	2.0Ø	100mØ	375 †				20p	ME	TO5		AØ
4	2N1952	600m	60M§Δ	4.0m	§J	40	40 §	10		1.0uØ	2.0Ø	100mØ	375 †				20p	ME	TO5		AØ
5#	N2XA	600m	60.M	4.0m			120 §	5.0	50m	1.0u	3.0Ø	5.0mØ	40					ME	TO5		
6#	ST151	600m	60M§Δ		§S	60	25	5.0		10nØ	10Ø	150mØ	20 †#Δ				25pØ	PE	TO5		Ø
7	2N696†	600m	64.MΔ	4.0m	§S	60	40 §	5.0		1.0uØ	10Ø	150mØ	20 #Δ				35pØ	D	TO5		AØ
8	2N1252†	600m	64.MΔ	4.0m	§J	30	20 §	5.0		10uØ	10Ø	150mØ	35 †#				45pØ	DΔ	TO5		AØ
9	2N3881	600m	70M§Δ	3.3m	§S	60	35	5.0	1.0	1.0uØ	5.0Ø	200uØ	50 Δ				25pØ		TO5		Ø
10	TRS100	600m	70.M§	4.5m	§J	150	135 §	5.0		1.0u	3.5Ø	60mØ	40 †				15p	MEΔ	TO5		AØ
11	TRS101	600m	70.M§	4.5m	§J	180	115 §	5.0		1.0u	5.0Ø	60mØ	35 †				15p	MEΔ	TO5		AØ
12	2N697†	600m	80MΔ	4.0m	§S	60	40 §	5.0		1.0uØ	10Ø	150mØ	40 Δ#	12u	2.2k	3.6	35pØ	Δ	TO5		AØ
13	2N1253†	600m	80.MΔ	4.0m	§J	30	20 §	5.0		10uØ	10Ø	150mØ	45 †#				45pØ	DΔ	TO5		AØ
14#	2SC497	600m	80.M§	5.0m	§J	100	80	5.0	800m	1.0uØ	2.0Ø	200mØ	70				30pØ	PL	TO39		G
15#	2SC498	600m	80.M§	5.0m	§J	80	50	5.0	800m	1.0uØ	2.0Ø	200mØ	70				30pØ	PL	TO39		G
16#	BFW29	600m	80.M	4.0m	§J	50	30	6.0	400m	10u	10	150m	70 †	50u	650		25pØ	PE	TO5		
17#	SP8400	600m	80MΔ	3.4m	§J	120	80	7.0		10nØ	10Ø	150mØ	40 †Δ#	11u	2.8k	3.5	13p	PL	TO5		
18#	SP8402	600m	80MΔ	3.4m	§J	100	60	7.0		25nØ	10Ø	10mØ	35 †Δ#	10u	600		15pØ	PL	TO5		
19#	ZT696	600m	80M§	4.0m	§A	60	40 §	5.0	500m	1.0uØ	10Ø	150mØ	40 †				20p	PL	TO5		Ø
20	2N1838†	600m	90M§Δ	4.0m	§J	45	20	5.0	500m	1.5uØ	10Ø	100mØ	40 †Δ				27pØ		TO5		AØ
21	2N1839†	600m	90M§Δ	4.0m	§J	45	20	4.5	500m	1.5uØ	10Ø	100mØ	12 †Δ				27pØ		TO5		AØ
22	2N1840†	600m	90M§Δ	4.0m	§J	25	15	5.0	500m	300uØ	10Ø	150mØ	10 †Δ				27pØ		TO5		AØ
23#	2SC109†	600m	90.M§	4.0m	§J	50	30	5.0	600m	1.0uØ	2.0Ø	150mØ	35 †Δ				12p	EM	TO5		
24#	BFX74	600m	90M§	3.4m	§J	50	35	5.0		1.0uØ	10Ø	5.0mØ	60	600nb	6.2	2.0	31p	DPL	TO5		AØ
25#	BSY24†	600m	90M§	5.0m	§A	40	20	6.0	500m	1.0m	9.0Ø	20mØ	30				23p	PEØ	TO5		Ø
26#	SP8401	600m	96MΔ	3.4m	§J	100	60	7.0		25nØ	10Ø	10mØ	75 †Δ#	20u	1.0k		15pØ	PL†	TO5		
27	2N1566A	600m	100M§Δ	4.0m	§S	80	60	8.0	100m	.50u	5.0Ø	1.0m	60 Δ		1.8kØ		6pØ		TO5		AØ
28	2N1958†	600m	100M§Δ	4.0m	§J	60	40 §	5.0	500m	.50uØ	10Ø	150mØ	20 †Δ				18pØ		TO5		AØ
29	2N1958A†	600m	100M§Δ	4.0m	§J	60	40 §	5.0	1	.20uØ	10Ø	150mØ	20 †Δ				14pØ		TO5		AØ
30	2N1959†	600m	100M§Δ	4.0m	§J	60	40 §	5.0	500m	.50uØ	10Ø	150mØ	40 †Δ				14pØ		TO5		AØ
31	2N1959A†	600m	100M§Δ	4.0m	§J	60	40 §	5.0	1	.20uØ	10Ø	150mØ	40 †Δ				14pØ		TO5		AØ
32	2N2237†	600m	100M§Δ	5.0m	§S	40	20	6.0	500m	.05uØ	1.0Ø	100mØ	40 †#Δ				35pØ		TO5		AØ
33	2N2380†	600m	100M§Δ	4.0m	§J	80	40	5.0	500m	4.0uØ	5.0Ø	150mØ	20 †#Δ				14pØ		TO5		AØ
34	2N2380A†	600m	100M§Δ	4.0m	§J	80	40	5.0	500m	4.0uØ	5.0Ø	150mØ	20 †#Δ				14pØ		TO5		AØ
35#	2SC108	600m	100M§Δ	4.0m	§J	90	45	5.0	600m	1.0uØ	2.0Ø	150mØ	20 †Δ				12p	EM	TO5		
36#	BFW37	600m	100M§	4.0m	§J	130	130 §	5.0	200m	5nØ	15Ø	6.0mØ	60	50u	600		6.0p	PE	TO5		AØ
37#	ZT697	600m	100M§	4.0m	§A	60	40 §	5.0	500m	1.0uØ	10Ø	150mØ	75 †				20p	PL	TO5		Ø
38♦	A777	600m	120M§	4.0m	§J	100	60	5.0	50m	4.0m*							1.8pt	PL	TO5		AØ
39#	BF177	600mØ	120M§	4.5m	§J	85	60	5.0	50m	4mt*	10Ø	15mØ	20 †Δ				2.5pt	PL	TO5		AØ
40#	BF178	600mØ	120M§	4.5m	§J	145	115	5.0	50m	4mt*	20Ø	30mØ	20 †Δ				2.5pt	PL	TO5		AØ
41#	BF179	600mØ	120M§	4.5m	§J	225	115	5.0	50m	4mt*	15Ø	20mØ	20 †Δ				2.5pt	PL	TO5		AØ
42#	BFW36	600m	120M	4.0m	§J	180	180 §	6.0	400m	100u	2.0	200m	50 †	40u	500		25pØ	PE	TO5		
43	2N1837†	600m	140M§Δ	4.0m	§J	80	30	8.0	500m	.50uØ	10Ø	150mØ	40 †Δ				18pØ		TO5		AØ
44#	BSY25†	600m	140M§	5.0m	§A	40	20	6.0	500m	1.0m	9.0Ø	20mØ	60				23p	PEØ	TO5		Ø
45	PT3473	600m	140M§Δ	3.4m	§J	140	80	7.0	1	.01uØ	10Ø	150mØ	100 †#Δ				13pØ	PLΔ	TO5		
46	2N1644	600m	150M	4.0m	§J	60		5.0		1.0u	10	150m	75 †				20p	PL	TO5		AØ
47	2N2086†	600m	150M§Δ	4.0m	§J	120	80 §	5.0	500m	2.0uØ	1.5Ø	150mØ	20 †Δ				12pØ		TO5		AØ
48	2N2087†	600m	150M§Δ	4.0m	§J	120	80 §	5.0	500m	2.0uØ	1.0Ø	150mØ	40 †Δ				12pØ		TO5		AØ
49	2N2309	600m	150M	5.0m	§J	30	30	5.0		5.0nØ	4.0Ø	200u	50 †	b	150		25pØ	PLØ	TO5		AØ
50	2N2479†	600m	150M§Δ	4.0m	§A	80	40	5.0	500m	4.0uØ	1.5Ø	150mØ	30 †Δ				14pØ	PE	TO5		AØ
51#	2SC188	600m	150M§	4.0m	§J	40	25 §	3.0	500m	1.0uØ	6.0Ø	10m	50				9.0p	PL	TO5		
52#	2SC189†	600m	150M§	4.0m	§J	60	40 §	5.0	500m	1.0uØ	10Ø	150mØ	40 †				9.0p	PL	TO5		
53	2SC247	600m	150M§	4.0m	§J	100		3.0	100m	1.0uØ	6.0Ø	2.0m	60				3.0p	PL	TO5		
54#	2SC500	600m	175M§	6.7m	§J	120	120 §	5.0	20m	1.0uØ	30Ø	3.0m	140				3.5pØ	PL	TO39		
55#	2SC461	600m	180M§		§J	60	50 §	5.0	300m	100nØ	6.0Ø	1.0mØ	50	100nb	28	800m	15p	ME	TO5		
56#	2SC481	600m	180M§	4.9m	§J	120	80 §	5.0	300m	100nØ	6.0Ø	1.0mØ	50	100nb	28	800m	15p	ME	TO5		
57#	2SC190†	600m	180M§	4.0m	§J	60	40 §	5.0	500m	1.0uØ	10Ø	150mØ	75 †				9.0p	PL	TO5		
58	2N2478†	600m	200M§Δ	4.0m	§A	120	40	5.0	500m	2.0uØ	1.5Ø	150mØ	30 †Δ				12pØ	PE	TO5		AØ
59	2N3426†	600m	200M§Δ	3.4m	§J	25	12	4.0	1	100u§	.50Ø	10mØ	20 #†Δ				25pØ		R94		AØ
60#	2SC588	600m	200M§			30	20	5.0	100m	1.0uØ	10Ø	10m	100				5pØ	PE	TO5		
61#	BF110	600m*	200M§	4.5m	§J	170	90	3.0	30m	1.5uØ	10Ø	10mØ	60 †				3.5p	ME	TO5		
62#	BFY45	600m*	200M§	4.5m	§J	170	90	3.0	30m	.10uØ	10Ø	10mØ	60 †				3.5p	MEΔ	TO5		
63#	BSW10†	600m*	200M§Δ	455u	§J	90	65	7.0	800m	.10uØ	10Ø	1.0mØ	60 †				10pØ	PE	TO5		AØ
64	PT1835	600m	200M	4.0m	§J	30	25 §	4.0		10uØ	10Ø	150mØ	45 †Ø				35p	PLΔ	TO18		
65#	BFY17†	600m	245M§	4.0m	§J	40	25	3.0	100m	10u	9.0Ø	10mØ	64				3.8p	PLØ	TO5		
66	2N2476†	600m	250M§Δ	3.4m	§J	60	20	5.0		.20uØ	.40Ø	150mØ	20 †Δ				10pØ		TO5		AØ
67	2N2477†	600m	250M§Δ	3.4m	§J	60	20	5.0		.20uØ	.40Ø	150mØ	40 †Δ				10pØ		TO5		AØ
68	2N2958†	600m	250M§Δ	4.0m	§S	60	20	5.0	600m	25nØ	10Ø	150mØ	40 †Δ				8.0pØ		TO5		AØ
69	2N2959†	600m	250M§Δ	4.0m	§S	60	20	5.0	600m	25nØ	10Ø	150mØ	100 †Δ				8.0pØ		TO5		AØ
70	2N2960†	600m	250M§Δ	4.0m	§J	60	30	5.0	600m	25nØ	10Ø	.10mØ	35 †Δ				8pØ		TO5		AØ
71	2N2961†	600m	250M§Δ	4.0m	§J	60	30	5.0	600m	25nØ	10Ø	500mØ	30 †#Δ				8pØ		TO5		AØ
72#	2N4432	600m	250M§Ø	4.0m	§S	50	30	6.0	200m	.01uØ	15	6.0m	115 Ø				10pØ		TO5		AØ
73#	2N4432A	600m	250M§	4.0m	§J	50	30	6.0	200m	10u	15Ø	6.0mØ	160 Ø	70u	3.5kØ		10pØ	PE	TO5		A
74#	2SC87†	600m	250M§	4.0m	§J	30	30 §	3.0	100m	1.0uØ	10Ø	10m	50				4.0p	MEΔ	TO5		
75#	2SC88†	600m	250M§	4.0m	§J	120	100 §	3.0	100m	1.0uØ	10Ø	10m	50				3.0p	MEΔ	TO5		
76#	TM1613	600m	250M§Δ	2.2m	§A	60	40 §	5.0	600m	.05uØ	10Ø	150mØ	40 †#Δ				8pØ	PE	TO5		
77#	TM1711	600m	250M§Δ	2.2m	§A	60	30 §	5.0	600m	.05uØ	10Ø	150mØ	100 †#Δ				8pØ	PE	TO5		
78#	ZT2476†	600m	250M§Δ	3.4m	§J	60	20	5.0		.20uØ	.40Ø	150mØ	20 †Δ				10p	PE	TO5		
79#	ZT2477†	600m	250M§Δ	3.4m	§J	60	20	5.0		.20uØ	.40Ø	150mØ	40 †Δ				10p	PE	TO5		
80#	2SC53	600m	300M§	4.0m	§J	25	25 §	3.0	100m	.50uØ	6.0Ø	1.0mØ	50				4.0p	PL	TO5		
81	S15660	600m	400M§Δ	3.4m	§J	40	15	4.0	1	.5m§Ø	.50Ø	300mØ	60 †#				15pØ	DPE	R83a		
82▼#	SL301A*	600m	400M§Δ	4.0m	§A	35	16	4.6	50m	1.0nØ	5.0Ø	100uØ	30 †Δ				2.0pØ		L44a		
83▼#	SL301AE*	600m	400M§Δ	4.0m	§A	35	16	4.6	50m	1.0nØ	5.0Ø	100uØ	30 †Δ				2.0pØ		L44b		
84▼#	SL301B*	600m	400M§Δ	4.0m	§A	30	12	4.6	50m	1.0nØ	5.0Ø	100uØ	10 †Δ				2.0pØ		L44a		
85▼#	SL301BE*	600m	400M§Δ	4.0m	§A	30	12	4.6	50m	1.0nØ	5.0Ø	100uØ	10 †Δ				2.0pØ		L44b		
86▼#	SL301E*	600m	400M§Δ	4.0m	§A	30	12	4.6	50m	1.0nØ	5.0Ø	100uØ	20 †Δ				2.0pØ		L44a		
87▼#	SL301EE*	600m	400M§Δ	4.0m	§A	30	12	4.6	50m	1.0nØ	5.0Ø	100uØ	20 †Δ				2.0pØ		L44b		
88▼#	SL303AE*	600m	400M§Δ	4.0m	§A	35	16	4.6	50m	1.0nØ	5.0Ø	100uØ	30 †Δ				2.0pØ		L43b		
89▼#	SL303AT*	600m	400M§Δ	4.0m	§A	35	16	4.6	50m	1.0nØ	5.0Ø	100uØ	30 †Δ				2.0pØ		L43a		
90▼#	SL303BE*	600m	400M§Δ	4.0m	§A	30	12	4.6	50m	1.0nØ	5.0Ø	100uØ	10 †Δ				2.0pØ		L43b		
91▼#	SL303BT*	600m	400M§Δ	4.0m	§A	30	12	4.6	50m	1.0nØ	5.0Ø	100uØ	10 †Δ				2.0pØ		L43a		
92▼#	SL354BE*	600m	400M§Δ	4.0m	§A	30	12	4.6	50m	1.0nØ	5.0Ø	100uØ	10 †Δ				2.0pØ		L67		
93▼#	SL354BF*	600m	400M§Δ	4.0m	§A	30	12	4.6	50m	1.0nØ	5.0Ø	100uØ	10 †Δ				2.0pØ		L67		
94	2N3303†	600m	450M§Δ	4.0m	§J	25	12	4.0	1	.30u	.50Ø	300mØ	60 #†				15pØ	PE	R83a		
95	2N5236§	600m	500M§Δ	3.4m	§J	40	20	4.0	150m	1.0u§	5.0Ø	50mØ	30 †#Δ				3p$Ø		TO39		AØ
96#	2SC991	600m	500M§		§J	36	36 §	4.0	400m	1.0uØ	3.0Ø	100mØ	30 †				5.0p	PE	TO39		A
97#	2SC992	600m	500M§		§J	36	36	4.0	600m	1.0uØ	3.0Ø	100mØ	30 †				5.0p	PE	TO39		A
98	S15659	600m	500M§Δ	3.4m	§J	40	20	4.0		.05uØ	5.0Ø	50mØ	70 †#				4pØ	DPE	TO5		AØ
99	2N5065†	600m	550M§Δ	3.4m	§J	25	15	4.0	500m	100u§	.50Ø	300mØ	50 †Δ				15p$Ø	#	R83a		AØ
100#	BFY63	600m	750M§	3.4m	§J	30	15	4.0		50nØ	5.0Ø	50mØ	70 †				2.8p	DPE	TO5		Ø
101	2N3137	600m	800M	3.4m	§J	40	20	4.0	150m	.05uØ	10Ø	50mØ	70 †#				3.5pØ	PE	TO5		AØ
102#	BFW19	600m	800M	3.4m	§J	40	20	4.0	300m	.01uØ	5.0Ø	50mØ	70 †#				3.5pØ	PE	TO5		AØ
103#	2SC823	600m	1.0G§Δ		§J	30	19 §	3.0	60m	.10uØ	10Ø	15mØ	100 †				1.3pØ	PE	TO33		
104	TIS90	625m		5.0m	§J	40	40	5.0	400m	.10uØ	2.0Ø	50mØ	160 †					PE†	TO92		B
105	TIS92	625m		5.0m	§J	40	40	5.0	400m	.10uØ	2.0Ø	50mØ	160 †					PE†	X55		A
106	TIS100	625m	80M§	5.0m	§S	180	180	5.0	100m	50nØ	10Ø	1.0mØ	40 †				2.8p	PE†	X55		A
107	TIS101	625m	80M§	5.0m	§S	150	150	5.0	100m	50nØ	10Ø	1.0mØ	45 †				2.8p	PE†	X55		A
108#	BFY65	630m	50M§Δ	4.3m	§J	100	90 §	7.0	50m	.10uØ	10Ø	2.0mØ	30 †Δ					PL	TO5		
109#	2SC216	650m		4.3m	§J	50	50 §	5.0	300m	.10uØ	1.0Ø	50mØ	50 †					PLΔ	TO5		
110#	2SC217	650m		4.3m	§J	25	25 §	5.0	300m	1.0uØ	1.0Ø	50mØ	50 †					PLΔ	TO5		

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	2SC218	650m		4.3m	§J	80	80 §	5.0	300m	.10uØ	1.0Ø	50mØ	50 †					PL△	TO5	
2#	2SC226	650m		4.3m	§J	50	50 §	5.0	700m	.10uØ	1.0Ø	100mØ	50 †					PE△	TO5	
3#	2SC227	650m		4.3m	§J	25	25 §	5.0	700m	1.0uØ	1.0Ø	100mØ	50 †					PE△	TO5	
4#	2SC228	650m		4.3m	§J	80	80 §	5.0	700m	.10uØ	1.0Ø	100mØ	50 †					PE△	TO5	
5#	2SC231	650m		4.3m	§J	50	50 §	5.0	700m	1.0uØ	1.0Ø	150mØ	40 †					EM△	TO5	
6#	2SC232	650m		4.3m	§J	25	25 §	5.0	700m	1.0uØ	1.0Ø	150mØ	40 †					EM△	TO5	
7#	2SC233	650m		4.3m	§J	80	80 §	5.0	700m	1.0uØ	1.0Ø	150mØ	40 †					EM△	TO5	
8#	2SC210	650m	150M§	4.3m	§J	50			500m	.10uØ	10Ø	20m	50				15p	PL	TO5	
9#	2SC211	650m	150M§	4.3m	§J	25			500m	1.0uØ	10Ø	20m	50				15p	PL	TO5	
10#	2SC212	650m	150M§	4.3m	§J	80			500m	.10uØ	10Ø	20m	50				15p	PL	TO5	
11#	2SC220	650m	150M§	4.3m	§J	50			700m	.10uØ	10Ø	20m	50				15p	PE	TO5	
12#	2SC221	650m	150M§	4.3m	§J	25			700m	1.0uØ	10Ø	20m	50				15p	PE	TO5	
13#	2SC222	650m	150M§	4.3m	§J	80			700m	.10uØ	10Ø	20m	50				15p	PE	TO5	
14#	2SC200	650m	350M§	4.3m	§J	40		5.0	300m	.02uØ	6.0Ø	1.0m	60				4.0p	PE	TO5	
15#	2SC201	650m	350M§	4.3m	§J	20		3.0	300m	.10uØ	6.0Ø	1.0m	60				4.0p	PE	TO5	
16#	2SC202	650m	350M§	4.3m	§J	80		5.0	300m	.02uØ	6.0Ø	1.0m	60				4.0p	PE	TO5	
17#	2SC824	650m	1.0G§△	222u	§J	50	25	3.0	120m	.10uØ	10Ø	30mØ	100 †				3pØ	PE	TO33	
18#	BF117	680m	80M§	4.5m	§J	140	140	5.0	100m	10nØ	10Ø	30mØ	25 †△				2.0p	PE	TO39	AØ
19#	2SC627	700m	20.M§	4.8m	§J	200	200	4.0	100m	5.0uØ	10Ø	50mØ	360 †*	10u	1.0k	.80	6.0p	D	TO5	A
20#	2SC826	700m	20.M§	4.8m	§J	100	60	6.0	300m	1.0uØ	4.0Ø	50mØ	100 †				10p	D	TO5	A
21#	2SC827†	700m	20.M§	4.8m	§J	100	60	6.0	500m	1.0uØ	4.0Ø	50mØ	100 †*				10p	D	TO5	A
22#	BC144	700m	40M§△	4.0m	§J	60	40	5.0		.02uØ	1.0Ø	300mØ	40 †				25pØ	DPE	TO5	
23#	BFY67A	700m*	60M§△	4.5m	§J	60	40 §	5.0	1.0 #	75nØ	10Ø	5.0mØ	35 △					PL△	TO5	Ø
24#	BFY67C	700m*	60M§△	4.5m	§J	50	25	5.0	1.0 #	20nØ	10Ø	5.0mØ	30 △					PL△	TO5	Ø
25#	BFY68A	700m*	70M§△	4.5m	§J	60	40 §	5.0	1.0 #	75nØ	10Ø	5.0mØ	70 △					PL△	TO5	Ø
26#	BFY33	700m*	80.M§	4.5m	§J	50	30 §	7.0	500m	.02uØ	10Ø	5.0mØ	35 △				18p	PL	TO5	
27#	BFY34	700m*	80.M§	4.5m	§J	75	50 §	7.0	500m	.01uØ	10Ø	5.0mØ	35 △				18p	PL	TO5	
28#	2SC798	700m	90.M§	4.8m	§J	60	35	4.0	1.5	5.0uØ	20Ø	15m	50				9.0p	DPL	TO5	A
29#	BFX68	700m	100M§	4.0m	§J	75	50 §	7.0		.01uØ	5.0Ø	1.0mØ	115	23.u	4.4	7.3	18p	DPLØ	TO5	AØ
30#	BFY46	700m*	100M§	4.5m	§J	75	50 §	7.0	500m	.01uØ	10Ø	5.0mØ	70 △				18p	PLØ	TO5	
31#	BSX95†	700m*	100M§△	4.5m	§J	75	30	7.0	500m	10nØ	5.0Ø	1.0mØ	40 △	500nØb	34 Ø	3.0	25p$	PE	TO5	AØ
32#	BSX96†	700m*	100M§△	4.5m	§J	75	30	7.0	500m	10nØ	5.0Ø	1.0mØ	50 △	500nØb	34 Ø	5.0	25p$	PEØ	TO5	AØ
33#	BFY12	700m*	180M§△	4.5m	§J	60	40	5.0	500m	.02uØ	10Ø	100mØ	105 †				4.0p	PE	TO5	
34#	BFY13	700m*	180M§△	4.5m	§J	80	60	5.0	350m	.02uØ	10Ø	100mØ	105 †				4.0p	PE	TO5	
35#	BFY14	700m*	180M§△	4.5m	§J	100	80	5.0	250m	.02uØ	10Ø	100mØ	105 †				4.0p	PE	TO5	
36♦#	AT440	700m	250M§△	4.0m	§J	50	30	5.0	500m	200nØ	10Ø	150mØ	30 †△				8.0pØ	PE	TO39	AØ
37▼#	AT441	700m	250M△§	4.0m	§J	50	45	5.0	500m	200n	10Ø	150mØ	30 △				8.0pØ	PE	TO39	AØ
38▼#	AT442	700m	250M△§	4.0m	§J	50	30	5.0	500m	200n	10Ø	150mØ	100 △				8.0pØ	PE	TO39	AØ
39▼#	AT443	700m	250M△§	4.0m	§J	50	45	5.0	500m	200n	10Ø	150mØ	100 △				8.0pØ	PE	TO39	AØ
40▼#	AT444	700m	250M△§	4.0m	§J	50	30	5.0	500m	200n	10Ø	150mØ	30 △				8.0pØ	PE	TO39	AØ
41▼#	AT445	700m	250M△§	4.0m	§J	50	45	5.0	500m	200n	10Ø	150mØ	30 △				8.0pØ	PE	TO39	AØ
42	S17900†	700m	250M§△	4.0m	§J	60	50	5.0	600m	1.3uØ	1.0Ø	100mØ	90 †#				10pØ	PE	TO5	AØ
43#	BSY34	700m*	400M§	4.5m	§J	50	40	5.0	600m	.03uØ	1.0Ø	100mØ	42 †				6.0p	PE	TO5	
44#	BFW17	700m	1.1G§	4.0m	§J	40	25	2.0	150m	20uØ†	5.0Ø	150mØ	25 †△				1.7p†	PE	TO39	AØ
45#	BFW16	700m	1.2G§	4.0m	§J	40	25	2.0	150m	20uØ†	5.0Ø	50mØ	25 △†				1.7p†	PEØ	TO39	AØ
46#	2SC47†	720m	180M§	4.7m	§J	40	25 §	5.0	300m	1.0uØ	6.0Ø	1.0mØ	50	100nb	28	500m	15p	ME	TO5	
47	2N4876	720m	650M§△	4.7m	§S	40	30	2.0	200m	500nØ	10Ø	50mØ	200 Ø				3.5p$		TO39	Ø
48	2N4875	720m	800M§△	4.7m	§S	40	25	2.0	200m	500nØ	10Ø	50mØ	200 Ø				3.5p$		TO39	Ø
49	TIS39	720m	800M§△	5.0m	§A	30	20	2.0	200m	500n§Ø	10Ø	50mØ	20 △				6.0pØ	PE	TO5	Ø
50	2N4874	720m	900M§△	4.7m	§S	30	20	2.0	200m	500nØ	10Ø	50mØ	200 Ø				3.5p$		TO39	Ø
51	2N243	750m		5.8m	§J	60	60		60m	1.0uØ	10	5.0m	9.0 △	b	12	600m		G	OV1	
52	2N244	750m		5.8m	§J	60	60		60m	1.0uØ	10	5.0m	25 △	b	12	600m		G	OV1	
53#	DT1621	750m		5.0m	§A	60	40	8.0	1	10u	6.0Ø	250mØ	50 †△					D	TO5	
54	2N1154	750mØ	1.0M	5.9m	$	50		1.0	60m	5.0u	10	5.0m	19	2.0uØ	30 Ø	3 Ø		G	OV9	
55	2N1155	750mØ	1.0M	5.9m	$	80		1.0	50m	6.0u	10	5.0m	19	2.0uØ	30 Ø	3 Ø		G	OV9	
56	2N1156	750mØ	1.0M	5.8m	$J	120		1.0	40m	8.0u	10	5.0m	15	1.0ub	12	3.0 Ø		G	OV9	
57	JAN2N341	750m	5.0M§△	6.2m	$S	125	100	1.0	60m	1.0uØ	10	5.0m	15 △	2.0uØb	30 Ø	3.0 Ø	30pØ		TO11	A
58#	2SC696	750m	35M§△	5.0m	§J	100	60	5.0	3.0	3.0uØ	2.0	500m	28 †△					PE	TO39	Ø
59#	2SC696A	750m	35M§△	5.0m	§J	130	80	5.0	3.0	3.0uØ	2.0	500m	28 †△					PE	TO39	Ø
60♦#	AT350	750m	40M△§	5.0m	§J	200	200	6.0	100m	200nØ	10Ø	20mØ	30 †△				3.5pØ	PL	TO39	AØ
61▼#	AT351	750m	40M△§	5.0m	§J	150	150	6.0	100m	200n	10Ø	20mØ	30 △				3.5pØ	PL	TO39	AØ
62#	2SC116T	750m	60M§△			75	50	5.0	200m	5.0m	2.0Ø	200mØ	8.0 †△						TO39	
63#	2SC116	750m	70M§	5.0m	§J	50		5.0	200m	1.0uØ	6.0Ø	10m	3.5		70		20p	EM	TO5	Ø
64#	2SC154H	750m	80M§△			120	70	5.0	100m	100u	6.0Ø	10mØ	35 †△						TO39	
65#	2SC150	750m	100M			20		5.0	100m	1.0u	6.0	10m	50				7.0p	ME	TO5	
66#	2SC154C	750m	120M§			200	200	6.0	100m	100m	10Ø	25mØ	30 †△						TO39	
67#	ZT68	750m	120M§△	4.3m	§J	100	80	5.0	500m	50n	6.0Ø	10mØ	35 †△				8.0p	PE	TO5	Ø
68#	2SC151	750m	130M			40		5.0	100m	1.0u	6.0	10m	50				7.0p	ME	TO5	
69#	2SC150T	750m	150M§			50	25	5.0	100m		6.0Ø	10mØ	7.0				7.0p	EM	TO5	
70#	2SC152	750m	160M			60		5.0	100m	1.0u	6.0	10m	50				7.0p	ME	TO5	
71#	2SC805	750m	160M§	5.0m	§J	100	100	5.0	200m	1.0uØ	5.0Ø	3.0mØ	100 †				3pØ	D	TO5	
72#	2SC352	750m	170M§		§J	50	30	5.0	100m	.20uØ	3.0Ø	1.0mØ	90 †				3.0p	PE	TO5	
73#	2SC352A	750m	170M§	5.0m	§J	50	30	5.0	100m	.20uØ	3.0Ø	1.0mØ	90 †				4.5pØ	D	TO5	
74#	2SC353	750m	170M§		§J	100	60	5.0	100m	.20uØ	3.0Ø	1.0mØ	90 †				3.0p	PE	TO5	
75#	2SC353A	750m	170M§	5.0m	§J	100	60	5.0	100m	.20uØ	3.0Ø	1.0mØ	90 †				4.5pØ	D	TO5	
76#	2SC470	750m	170M§		§J	150	130	5.0	100m	1.0uØ	5.0Ø	3.0mØ	60 †				2.0p	PE	TO5	
77#	2SC31	750m	200M§		§J	60	25	5.0	200m	.10u	10Ø	10m	35				4.0p	PE	TO5	
78#	2SC456	750m	200M§	6.3m	§J	50	50 Ø	1.5	600m		6.0Ø	80m	20 †				10p	PE	TO5	
79#	2SC501	750m	200M§	5.0m	§J	60	30	5.0	300m	.10u	10Ø	10m	80				7pØ	PE	TO39	
80▼#	2SC507	750m	200M§		§J	170	120 §	5.0	80m	1.0uØ	5.0Ø	10mØ	70 †				5.0pØ	DPL	TO39	A
81#	2SC589	750m	200M§		§J	165	150	5.0	80m	2.0uØ	20Ø	3.0m	40				4pØ	D	TO5	
82#	2SC594	750m	200M§		§J	60	30	5.0	200m	.10uØ	10Ø	10m	60				4.0p	PE	TO5	AØ
83#	2SC708	750m	200M§			60	80	4.0	1		4.0Ø	50mØ	35 †△						TO39	
84#	2SC708A	750m	200M§			90	50	4.0	1		4.0Ø	50mØ	35 †△						TO39	
85#	2SC154	750m	220M†	5.0m	§J	120	70	5.0	100m		10Ø	10m	11				60pØ	D△	TO5	
86#	2SC32	750m	250M§		§J	60	25	5.0	200m	.10u	10Ø	10m	60				4.0p	PE	TO5	
87#	2SC58A	750m	250M§	6.3m	§J	135	120	5.0	50m		10	10m	65 †				3.0p	ME	TO5	
88#	2SC526	750m	250M§	5.0m	§J	165	150	5.0	55m	2.0uØ	20	45m	20 †△				3.5p†	EM	TO5	AØ
89#	2SC652	750m	800M§△	5.9m	§J	40	20	3.0	300m	.10uØ	10Ø	100mØ	20 †#△				2.5p	PE	TO5	A
90#	2SC556	750m	850M§	6.3m	§J	40	20	2.0	400m	25uØ	15Ø	50m	45				3.8pØ	PE	TO39	
91#	2SC651	750m	1.1G§		§J	45	22	4.0	300m	100nØ	10Ø	100mØ	80				3.5pØ	PE	TO5	
92	KD2541	750mØ	1.2G	4.3m	§J	25	12	2.0	40m	.15uØ	10	8.0mØ	20 †△				1pØ		X72	U
93	KD2540	750mØ	1.5G	4.3m	§J	25	12	2.0	40m	.15uØ	10	8.0mØ	20 †△				1pØ		X72	U
94	2N1943	800m		4.5m	§J	60	60	8.0	500m	10uØ	6.0Ø	1.0mØ	12 △		500 Ø			PL	TO5	
95▼	2N5189	800m		4.5m	§S	60	55 Ø	5.0	2.0	100u	1.0Ø	1.0 Ø	15 †△					R81	AØ	
96	2N5262†	800m		5.7m	§S	75	50	5.0	2.0	100u	1.0Ø	500mØ	40 †△						R81e	AØ
97#	111T2†	800m		5.6m	§J		90 Ø	4.0		1.0uØ	10Ø	10mØ	30 †△					PE	RO100	A
98#	BFY41	800m		4.5m	§S	120	120 §	5.0	600m	.10uØ	10Ø	50mØ	35 †△				14p	PL	TO5	
99▼#	BC313	800m	200 §	5.3m	§J	70	40	7.0	1.0	100u	1.0Ø	300mØ	40 △†				7.0p	PE	TO5	AØ
100	2N1445	800m	75k†	4.5m	§J	120	120	8.0	750m	10u	10Ø	200mØ	80 †Ø#		500				TO5	Ø
101	2N4237	800m	1.0M§△	4.5m	§J	50	40	6.0	1	100u	10Ø	100mØ	30 △				100pØ		TO5	AØ
102	2N4238	800m	1.0M§△	4.5m	§J	80	60	6.0	1	100u	10Ø	100mØ	30 △				100pØ		TO5	AØ
103	2N4239	800m	1.0M§△	4.5m	§J	100	80	6.0	1	100u	10Ø	100mØ	30 △				100pØ		TO5	AØ
104#	DT1510†	800m	1.0M	5.0mØ	$S	30	20	8.0	300m	4.0u	6.0Ø	300mØ	25 †	500u	100	5.0			TO5	
105#	DT1511†	800m	1.0M	5.0mØ	$S	60	40	8.0	300m	4.0u	6.0Ø	300mØ	25 †	500u	100	5.0			TO5	
106#	DT1512†	800m	1.0M	5.0mØ	$S	100	70	8.0	300m	4.0u	6.0Ø	300mØ	25 †	500u	100	5.0			TO5	
107#	DT1520†	800m	2.0M	5.0mØ	$S	30	20	8.0	300m	4.0u	6.0Ø	300mØ	120 †	800u	300	5.0			TO5	
108#	DT1521†	800m	2.0M	5.0mØ	$S	60	40	8.0	300m	4.0u	6.0Ø	300mØ	120 †	800u	300	5.0			TO5	
109#	DT1522†	800m	2.0M	5.0mØ	$S	100	70	8.0	300m	4.0u	6.0Ø	300mØ	120 †	800u	300	5.0			TO5	
110	JAN2N497	800m	15M§△	4.5m	§S	60	60	8.0		100u	10Ø	50mØ	10 †△						TO5	AØ

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T E M A X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	JAN2N498	800m	15M§△	4.5m	§S	100	100	8.0		100u	10Ø	50mØ	10 †△						TO5	AØ
2	JAN2N656	800m	15M§△	4.5m	§S	60	60	8.0		100u	10Ø	50mØ	40 †△						TO5	AØ
3	JAN2N657	800m	15M§△	4.5m	§S	100	100	8.0		100u	10Ø	50mØ	40 †△						TO5	AØ
4	JAN2N3439†	800m	15M§△	4.5m	§J	450	350	7.0	1.0	500u	10Ø	20mØ	40 †△				10 Ø		TO5	AØ
5	JAN2N3440†	800m	15M§△	4.5m	§J	300	250	7.0	1.0	500u	10Ø	20mØ	40 †△				10 Ø		TO5	AØ
6	2N1714	800m	16M§△	5.3m	§J		60	6.0	750m	2.0u§	5.0Ø	200mØ	20 †#△				50pØ	DM	TO5	AØ
7	JAN2N1714	800m	16M§△	5.2m	§J		60	6.0	750m	1.0uØ	5.0Ø	200mØ	20 †△#				50 Ø		TO5	AØ
8	2N1715	800m	16M§△	5.3m	§J		100	6.0	750m	2.0u§	5.0Ø	200mØ	20 †#△				50pØ	DM	TO5	AØ
9	JAN2N1715	800m	16M§△	5.2m	§J		100	6.0	750m	1.0uØ	5.0Ø	200mØ	20 †△#				50 Ø		TO5	AØ
10	2N1716	800m	16M§△	5.3m	§J		60	6.0	750m	2.0u§	5.0Ø	200mØ	40 †#△				50pØ	DM	TO5	AØ
11	JAN2N1716	800m	16M§△	5.2m	§J		60	6.0	750m	1.0uØ	5.0Ø	200mØ	40 †△#				50 Ø		TO5	AØ
12	2N1717	800m	16M§△	5.3m	§J		100	6.0	750m	2.0u§	5.0Ø	200mØ	40 †#△				50pØ	DM	TO5	AØ
13	JAN2N1717	800m	16M§△	5.2m	§J		100	6.0	750m	1.0uØ	5.0Ø	200mØ	40 †△#				50 Ø		TO5	AØ
14#	2SC484	800m	20.M§	6.7m	§J	150	110	5.0	1.5	10uØ	2.0Ø	200mØ	30 †*△					DM	TO39	AØ
15#	2SC485	800m	20.M§	6.7m	§J	120	80	5.0	1.5	10uØ	2.0Ø	200mØ	30 †*△					DM	TO39	AØ
16#	2SC486	800m	20.M§	6.7m	§J	80	50	5.0	1.5	10uØ	2.0Ø	200mØ	30 †*△					DM	TO39	AØ
17	TN63†	800m	20M§△	4.5m	§J	20	20	5.0	800m	100n	5.0Ø	1.0mØ	65	100nb	26	2.0	8.0pØ	PEØ	TO5	A
18	2N2008†	800m	30M	4.7m	▼J	175	110	8.0		2.0uØ	50	5.0mØ	65	250nb	6.0	700m	7.0p	PL	TO5	AØ
19	2N2890†	800m	30M§△	4.5m	§J	100	80	5.0		50u△	2.0Ø	1 Ø	30 †△				70pØ	PE	TO5	AØ
20	2N2891†	800m	30M§△	4.5m	§J	100	80	5.0		50u△	2.0Ø	1 Ø	50 †△				70pØ	PE	TO5	AØ
21	MJ420	800m	30M§△	5.3m	§J	275	250	6.0	100m	.10m	20Ø	10mØ	25 △				3.5pØ		TO5	AØ
22	MJ421	800m	30M§△	5.3m	§J	350	325	6.0	100m	.10m	20Ø	10mØ	25 △				3.5pØ		TO5	AØ
23	2N696A†	800m	40M§△	4.5m	§J	60	35	5.0	1.0	100nØ	10Ø	5.0m	15 △	1.5uØb	10 Ø	5.0 Ø	35p		TO5	AØ
24	2N698	800m	40M§△	4.5m	§J	120	60	7.0		5.0nØ	5.0Ø	1.0mØ	15 △	500nØb	35 Ø	2.5 Ø	15pØ	△	TO5	AØ
25	2N3114	800m	40M§△	4.5m	§J	150	150	5.0	200m	.01uØ	5.0Ø	1.0mØ	25 △				9pØ		TO5	AØ
26	2N3712	800m	40M§△	5.3m	§S	150	150	5.0	200m	.10uØ	10Ø	30mØ	25 △				9pØ		TO5	AØ
27	2N3923	800m	40M§△	4.5m	§J	150	150	6.0	100m	.01uØ	10Ø	25mØ	20 △		50		3.5pØ		TO5	AØ
28#	BC119	800m	40M§△	4.5m	§J	60	30	5.0		.05uØ	1.0Ø	150mØ	40 †△				25pØ	PE	TO5	
29#	BC120	800m	40M§△	4.5m	§J	60	30	5.0		.05uØ	1.0Ø	150mØ	20 †△				25pØ	DPE	TO5	
30	BC138	800m	40M§△	4.5m	§J	60	30	5.0		.05uØ	10Ø	10mØ	100 †#				12p	DPE	TO5	
31#	BC142	800m	40M§△	4.5m	§J	80	60	5.0		.05uØ	2.0Ø	200mØ	20 †△				25pØ	PE	TO5	
32#	BC211	800m	40.M§	5.3m	§J	80	40	7.0	1	.1nØ	1.0Ø	10mØ	70 †				6.0p		TO39	A
33#	BF140	800m	40M§△	4.5m	§S	135	135 §	3.0		1.0uØ	10Ø	10mØ	15 †△				3pØ	PL	TO5	AØ
34#	BF140A	800m	40.M△				150 §		30m									PL	TO5	
35#	BFX98	800m	40M△§	4.5m	§J	150	150	6.0	100m	.01uØ	10Ø	25mØ	30 †△#				3ptØ	PL	TO5	AØ
36#	BFY57	800m	40M§△	4.5m	§J	125	125	5.0	100m	100nØ	5.0Ø	1.0mØ	50	5.3u	1.5k	1.5	6.0p	DPL	TO5	Ø
37	MST10S	800m	40M	5.3m	§J	100	100 §	5.0	200m	2.0u	10Ø	15mØ	30				8.0p	DM	TO5	
38	MST20S	800m	40M	5.3m	§J	200	200 §	5.0	200m	2.0u	10Ø	15mØ	30				8.0p	DM	TO5	
39	MST30S	800m	40M	5.3m	§J	300	300 §	5.0	200m	2.0u	10Ø	15mØ	30				8.0p	DM	TO5	
40	MST40S	800m	40M	5.3m	§J	400	400 §	5.0	100m	2.0u	10Ø	15mØ	30				8.0p	DM	TO5	
41	MST50S	800m	40M	5.3m	§J	500	500 §	5.0	100m	4.0u	10Ø	10mØ	30				8.0p	DM	TO5	
42	MST60S	800m	40M	5.3m	§J	600	600 §	5.0	100m	4.0u	10Ø	10mØ	30				8.0p	DM	TO5	
43	MST70S	800m	40M	5.3m	§J	700	700 §	5.0	100m	4.0u	10Ø	10mØ	30				8.0p	DM	TO5	
44▼#	AT360	800m	45M△§	4.5m	§J	80	60	8.0	3.0	1.0u	2.0Ø	1.0 Ø	30 △				120pØ	PL	TO39	AØ
45▼#	AT361	800m	45M△§	4.5m	§J	100	80	8.0	3.0	1.0u	2.0Ø	1.0 Ø	30 △				120pØ	PL	TO39	AØ
46▼#	AT362	800m	45M△§	4.5m	§J	120	100	8.0	3.0	1.0u	2.0Ø	1.0 Ø	30 △				120pØ	PL	TO18	AØ
47▼#	AT363	800m	45M△§	4.5m	§J	80	60	8.0	3.0	1.0u	2.0Ø	1.0 Ø	100 △				120pØ	PL	TO18	AØ
48▼#	AT364	800m	45M△§	4.5m	§J	100	80	8.0	3.0	1.0u	2.0Ø	1.0 Ø	100 △				120pØ	PL	TO18	AØ
49▼#	AT365	800m	45M△§	4.5m	§J	120	100	8.0	3.0	1.0u	2.0Ø	1.0 Ø	100 △				120pØ	PL	TO18	AØ
50▼#	AT366	800m	45M§△	4.5m	§J	80	60	8.0	3.0	1.0u	2.0Ø	1.0 Ø	30 △				120pØ	PL	TO18	AØ
51▼#	AT367	800m	45M△§	4.5m	§J	100	80	8.0	3.0	1.0u	2.0Ø	1.0 Ø	30 △				120pØ	PL	TO18	AØ
52▼#	AT368	800m	45M△§	4.5m	§J	120	100	8.0	3.0	1.0u	2.0Ø	1.0 Ø	30 △				120pØ	PL	TO18	AØ
53	2N697A†	800m	50M§△	4.5m	§J	60	35	5.0	1.0	100nØ	5.0Ø	1.0m	25 △	500nØb	30 Ø	5.0 Ø	35pØ		TO5	AØ
54	2N699A	800m	50M§△	5.2m	§J	120	80 §	5.0		500nØ	5.0Ø	1.0mØ	35 △	500nØb	30 Ø	2.5 Ø	20pØ	△	TO5	AØ
55	2N1889	800m	50M§△	4.5m	§J	100	60	7.0		10nØ	5.0Ø	1.0mØ	30 △	500nØb	30 Ø	1.2 Ø	15pØ		TO5	AØ
56	2N1893	800m	50M§△	4.5m	§J	120	80	7.0	500m	10nØ	5.0Ø	1.0mØ	30 △	500nØb	30 Ø	1.2 Ø	15pØ	△	TO5	AØ
57	2N1974	800m	50M§△	4.5m	§J	100	60	7.0		25nØ	5.0Ø	1.0mØ	36 △	50uØ	1.0kØ		15pØ		TO5	AØ
58	2N2049	800m	50M§△	4.5m	§J	75	50 §	7.0	500m	10nØ	5.0Ø	1.0mØ	75 △	500nØb	34 Ø	5.0 Ø	25pØ	Ø	TO5	AØ
59	2N2192†	800m	50M§△	4.5m	§J	60	40	5.0	1	.01uØ	10Ø	10mØ	75 †△				20pØ		TO5	AØ
60	2N2192A†	800m	50M§△	4.5m	§J	60	40	5.0	1.0	10nØ	10Ø	10mØ	75 †△				20pØ		TO5	AØ
61	2N2192B†	800m	50M§△	4.5m	§J	60	40	5.0	1	.01uØ	10Ø	10mØ	75 †△				20pØ		TO5	AØ
62	2N2193†	800m	50M§△	4.5m	§J	80	50	8.0	1	.01uØ	10Ø	10mØ	30 †△				20pØ		TO5	AØ
63	2N2193A†	800m	50M§△	4.5m	§J	80	50	8.0	1	.01uØ	10Ø	10mØ	30 †△				20pØ		TO5	AØ
64	2N2193B†	800m	50M§△	4.5m	§J	80	50	8.0	1	.01uØ	10Ø	10mØ	30 †△				20pØ		TO5	AØ
65	2N2194†	800m	50M§△	4.5m	§J	60	40	5.0	1	.01uØ	10Ø	10mØ	15 †△				20pØ		TO5	AØ
66	2N2194A†	800m	50M§△	4.5m	§J	60	40	5.0	1	.01uØ	10Ø	10mØ	15 †△				20pØ		TO5	AØ
67	2N2194B†	800m	50M§△	4.5m	§J	60	40	5.0	1	.01uØ	10Ø	10mØ	15 †△				20pØ		TO5	AØ
68	2N2243	800m	50M§△	4.5m	§J	120	80	7.0	1	.01uØ	10Ø	10mØ	30 †△				15pØ	△	TO5	AØ
69	2N2243A	800m	50M§△	4.5m	§J	120	80	7.0	1	.01uØ	10Ø	10mØ	30 †△				15pØ	△	TO5	AØ
70	2N2443	800m	50M§△	4.5m	§J	120	100	7.0		.01uØ	5.0Ø	1.0mØ	30 △	50uØ	1.0kØ		15pØ		TO5	AØ
71	2N2868	800m	50M§△	4.5m	§J	60	40	7.0	1	.01uØ	10Ø	10mØ	30 †△				20pØ	△	TO5	AØ
72	2N3036†	800m	50M§△	4.5m	§S	120	80	7.0	1.2	.01uØ	10Ø	10mØ	40 △	120uØ	900 Ø		15pØ		TO5	AØ
73#	2SC516	800m	50M§	5.2m	§J	100	60	5.0	1.5	500nØ	2.0Ø	200mØ	60 †				25p	D	TO5	A
74#	2SC516A	800m	50M§	5.2m	§J	140	100	5.0	1.5	500nØ	2.0Ø	200mØ	60 †				25p	D	TO5	A
75#	BFW33	800m	50M△§	4.5m	§J	120	80	7.0		.01uØ	10Ø	150mØ	40 †△#	1.1u	2.8k	3.5	15pØ	PL	TO5	AØ
76#	BFX84	800m	50M§△	4.5m	§J	100	60	6.0	1	.05uØ	10Ø	10mØ	20 †△					PE	TO5	AØ
77#	BFX85	800m	50M§△	4.5m	§J	100	60	6.0	1	.05uØ	10Ø	10mØ	50 †△					PE	TO5	AØ
78#	BFX86	800m	50M§△	4.5m	§J	40	35	6.0	1	.05uØ	10Ø	10mØ	50 †△					PE	TO5	AØ
79#	BFY51†	800m	50M§△	4.5m	§J	60	60	6.0	1.0	500n	6.0Ø	10mØ	60	35u	220	700m		PE	TO5	Ø
80#	BFY52†	800m	50M§△	4.5m	§J	40	40	6.0	1.0	500n	6.0Ø	10mØ	120	70u	400	1.3		PE	TO5	Ø
81#	BFY53	800m	50M§△	4.5m	§J	30	20	6.0	1.0		6.0Ø	150mØ	30 †△				12pØ	PE	TO5	Ø
82#	BSY45	800m	50.M△	4.5m	§J						10Ø	150mØ	80 †#				15pØ	PL△	TO5	
83#	BSY46†	800m	50.M△	4.5m	§J						10Ø	150mØ	80 †#				20pØ	PE	TO5	
84#	BSY91	800m	50M§△	4.5m	§J	40	25	5.0		50nØ	10Ø	5.0mØ	30 †△				25pØ	PL△	TO5	Ø
85#	BSY92	800m	50M§△	4.5m	§J	60	40	5.0		20nØ	2.0Ø	10mØ	50 †△				25pØ	PL△	TO5	Ø
86	PT2525	800m	50M§△	4.5m	§J	220	170	5.0	500m	.01uØ	50Ø	10mØ	20 †#△				6pØ	PL	MT39	
87	PT2575	800m	50M§△	4.5m	§J	220	170	5.0	500m	.01uØ	50Ø	10mØ	20 †#△				6pØ	PL		
88	TN79	800m	50M§△	4.7m	§J	30	20	5.0		1.0nØ	1.0Ø	100uØ	75 †△				10pØ	PEØ	TO5	A
89	2N1420A	800m	60M§△	4.5m	§J	60	40 §	7.0	1 #	.01uØ	10Ø	.10mØ	35 †△				25pØ	△	TO5	AØ
90	2N1613	800m	60M§△	4.5m	§J	75	50 §	7.0		10nØ	5.0Ø	1.0mØ	30 △	500nØb	34 Ø	3.0 Ø	25pØ	PL△	TO5	AØ
91	JAN2N1613	800m	60M§△	4.5m	§J	75	30	7.0	500m	10nØ	5.0Ø	1.0mØ	100 Ø	1.0uØb	8.0 Ø	3.0 Ø	25pØ	△	TO5	AØ
92	2N1890	800m	60M§△	4.5m	§J	100	60	7.0		10nØ	5.0Ø	1.0mØ	50 △	300nØb	30 Ø	1.5 Ø	15pØ		TO5	AØ
93	JAN2N1893	800m	60M§△	4.5m	§J	120	80	7.0	500m	10nØ	5.0Ø	1.0mØ	100 Ø	500nØb	8.0 Ø	1.5 Ø	15pØ	△	TO5	AØ
94	2N1973	800m	60M§△	4.5m	§J	100	60	7.0		25nØ	5.0Ø	1.0mØ	76 △	100uØb	1.8kØ		15pØ		TO5	AØ
95	2N2297	800m	60M§△	4.5m	§J	80	35	7.0	1	.01uØ	10Ø	150mØ	40 †#△				12pØ		TO5	AØ
96	2N3108†	800m	60M§△	4.5m	§J	100	60	7.0	1	.01u§	10Ø	.10mØ	20 †△				20pØ	Ø	TO5	AØ
97	2N3110†	800m	60M§△	4.5m	§J	80	40	7.0	1	.01u§	10Ø	.10mØ	20 †△				25pØ	Ø	TO5	AØ
98	2N3122	800m	60M§△	4.5m	§J	50	30	5.0	500m	2.0uØ	5.0Ø	300mØ	25 †#△				25pØ		TO5	AØ
99▼#	2SC510O†	800m	60M§	5.3m	§J	140	100	5.0	1.5	1.0uØ	2.0Ø	200mØ	50 †△				25p	DPL	TO39	AØ
100▼#	2SC510R†	800m	60M§	5.3m	§J	140	100	5.0	1.5	1.0uØ	2.0Ø	200mØ	30 †△				25p	DPL	TO39	AØ
101▼#	2SC511O†	800m	60M§	5.3m	§J	120	80	5.0	1.5	1.0uØ	2.0Ø	200mØ	50 †△				25p	DPL	TO39	AØ
102▼#	2SC511R†	800m	60M§	5.3m	§J	120	80	5.0	1.5	1.0uØ	2.0Ø	200mØ	30 †△				25p	DPL	TO39	AØ
103▼#	2SC512O†	800m	60M§	5.3m	§J	100	60	5.0	1.5	1.0uØ	2.0Ø	200mØ	50 †△				25p	DPL	TO39	AØ
104▼#	2SC512R†	800m	60M§	5.3m	§J	100	60	5.0	1.5	1.0uØ	2.0Ø	200mØ	30 †△				25p	DPL	TO39	AØ
105▼#	2SC513O†	800m	60M§	5.3m	§J	70	40	5.0	1.5	1.0uØ	2.0Ø	200mØ	50 †△				25p	DPL	TO39	AØ
106▼#	2SC513R†	800m	60M§	5.3m	§J	70	40	5.0	1.5	1.0uØ	2.0Ø	200mØ	30 †△				25p	DPL	TO39	AØ
107♦#	AT470	800m	60M△§	4.5m	§J	60	40	6.0	1.0	200n	1.0Ø	60mØ	40 †△				25pØ	PE	TO39	AØ
108▼#	AT471	800m	60M△§	4.5m	§J	80	60	6.0	1.0	200n	1.0Ø	60mØ	40 △				25pØ	PE	TO39	AØ
109▼#	AT472	800m	60M△§	4.5m	§J	100	80	6.0	1.0	200n	1.0Ø	60mØ	40 △				25pØ	PE	TO39	AØ
110▼#	AT473	800m	60M△§	4.5m	§J	60	40	6.0	1.0	200n	1.0Ø	60mØ	100 △				25pØ	PE	TO39	AØ

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M A X	E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1▼#	AT474	800m	60M△§	4.5m	§J		80	60	6.0	1.0	200n	1.0Ø	60mØ	100 △				25pØ	PE	TO39	AØ
2▼#	AT475	800m	60M△§	4.5m	§J		100	80	6.0	1.0	200n	1.0Ø	60mØ	100 △				25pØ	PE	TO39	AØ
3▼#	AT476	800m	60M△§	4.5m	§J		60	40	6.0	1.0	200n	1.0Ø	60mØ	40 △				25pØ	PE	TO39	AØ
4▼#	AT477	800m	60M△§	4.5m	§J		80	60	6.0	1.0	200n	1.0Ø	60mØ	40 △				25pØ	PE	TO39	AØ
5▼#	AT478	800m	60M△§	4.5m	§J		100	80	6.0	1.0	200n	1.0Ø	60mØ	40 △				25pØ	PE	TO39	AØ
6	BF156	800m	60.M§	4.5m	§J		120	120	5.0		.10uØ	5.0Ø	10mØ	50				6.0p	DPL	TO5	
7	BF157	800m	60.M§	4.5m	§J		150	150	5.0		.10uØ	10Ø	10mØ	60 †#				6.0p	DPL	TO5	
8#	BFW24	800m	60M△§	4.5m	§J		100	60	7.0	1	.01uØ	1.0Ø	150mØ	40 †△#				20pØ	PE	TO5	AØ
9#	BFW26	800m	60M△§	4.5m	§J		80	40	7.0	1	.01uØ	1.0Ø	150mØ	40 †△#				25pØ	PE	TO5	AØ
10#	BFY40	800m	60.M§	4.5m	§J		60	30	7.0	800m	.10uØ	10Ø	50mØ	50 †△	3.0u	2.5k	.20	14p	PL	TO5Ø	
11#	BFY43	800m	60.M§	5.3m	§J			140	5.0	100m	.10uØ	10Ø	10mØ	25 †△				6pØ	PL	TO5	
12#	BFY50†	800m	60M§△	4.5m	§J		80	80	6.0	1.0	50nØ	6.0Ø	10mØ	45	30u	180	550m		PE	TO5	Ø
13	BFY67	800m	60M§△				75		7.0	1 #			150mØ	40 †△					P	TO5	
14#	BSY44	800m	60.M△	4.5m	§J							10Ø	150mØ	80 †#				25pØ	PL△	TO5	
15	SE7001	800m	60.M§	4.5m	§J		150	150	5.0		.10uØ	5.0Ø	10mØ	50	5.3u	1.5k	1.5	6.0p	DPL	TO5	CØ
16	SE7002	800m	60.M§	4.5m	§J		120	120	5.0		.10uØ	5.0Ø	10mØ	50	5.3u	1.5k	1.5	6.0p	DPL	TO5	CØ
17#	ZT1613	800m	60M§△	4.5m	§J		75	50 §	7.0	1	.01uØ	10Ø	150mØ	40 †△				25pØ	PL	TO5	
18	2N1975	800m	64M△	4.5m	§S		100	60	7.0		25nØ	5.0Ø	1.0mØ	38	130nb	26	300m	15pØ	PL	TO5	AØ
19▼#	BF292A	800m	66M§	4.5m	§J		150	150	5.0	100m	100nØ	50Ø	10mØ	30 †△				6.0p	DPL	TO5	
20▼#	BF292B	800m	66M§	4.5m	§J		190	190	5.0	100m	100nØ	50Ø	10mØ	30 †△				6.0p	DPL	TO5	
21▼#	BF292C	800m	66M§	4.5m	§J		220	220	5.0	100m	100nØ	50Ø	10mØ	30 †△				6.0p	DPL	TO5	
22	2N1335	800m	70M§△	5.3m	§J		120	90 §	4.0	300m	1.0uØ	10Ø	30mØ	10 †#△				8.0p	PL	TO5	A
23	2N1336	800m	70M§△	5.3m	§J		120	90 §	4.0	300m	1.0uØ	10Ø	30mØ	10 †#△				10p	PL	TO5	A
24	2N1337	800m	70M§△	5.3m	§J		120	90 §	4.0	300m	1.0uØ	10Ø	30mØ	10 †#△				8.0p	PL	TO5	A
25	2N1338	800m	70M§△	5.3m	§J		80	50 §	3.0	300m	10uØ	10Ø	30mØ	10 †#△				10p	PL	TO5	A
26	2N1339	800m	70M§△	5.3m	§J		120	100 §	3.0	300m	1.0uØ	10Ø	30mØ	10 †#△				8.0p	PL	TO5	A
27	2N1340	800m	70M§△	5.3m	§J		120	100 §	3.0	300m	1.0uØ	10Ø	30mØ	10 †#△				8.0p	PL	TO5	AØ
28	2N1341	800m	70M§△	5.3m	§J		120	100 §	3.0	300m	1.0uØ	10Ø	30mØ	10 †#△				8.0p	PL	TO5	A
29	2N1342	800m	70M§△	5.3m	§J		150	125 §	5.0	300m	10uØ	10Ø	30mØ	10 †#△				8.0p	PL	TO5	AØ
30	2N1711	800m	70M§△	4.5m	§J		75	50 §	7.0	1.0 #	10nØ	5.0Ø	1.0mØ	50 △	500nØb	34 Ø	5.0 Ø	25pØ	Ø	TO5	AØ
31	JAN2N1711†	800m	70M§△	4.5m	§J		75	30	7.0	500m	10nØ	10Ø	5.0mØ	90 △	1.0uØb	8.0 Ø	5.0 Ø	25pØ	Ø	TO5	AØ
32	JAN2N1890†	800m	70M§△	4.5m	§J		100	60	7.0	500m	10nØ	10Ø	5.0mØ	90 △	300nØb	8.0 Ø	1.5 Ø	5.0pØ	Ø	TO5	
33	2N3107†	800m	70M§△	4.5m	§J		100	60	7.0	1	.01u§	10Ø	1.0mØ	60 △				20pØ	Ø	TO5	AØ
34	2N3109†	800m	70M§△	4.5m	§J		80	40	7.0	1		10Ø	1.0mØ	60 △				25pØ	Ø	TO5	AØ
35#	2SC70	800m	70M§△	6.7m	§J		180			20m	1.0uØ	30Ø	2.0m	45				1.8p	ME	TO39	AØ
36#	BFW25	800m	70M△§	4.5m	§J		80	40	7.0	1	.01uØ	1.0Ø	150mØ	100 †△#				25pØ	PE	TO5	AØ
37#	C420	800m	70M§	4.5m	§A		60	28	7.0		20nØ	5.0Ø	1.0mØ	55	12u	2.2k	3.6	18p	DPL	TO5	Ø
38#	C425	800m	70M§	4.5m	§A		75	60	7.0		20nØ	10Ø	5.0mØ	75	16u	750	1.1	13p	DPL	TO5	Ø
39#	ZT1711	800m	70M§△	4.5m	§J		75	50	7.0		10nØ	10Ø	150mØ	100 †△#				25pØ	PLØ	TO5	Ø
40	2N3020	800m	80M§△	4.5m	§J		140	80	7.0	1	.01uØ	5.0Ø	1.0mØ	30 △				12pØ		TO5	AØ
41▼#	BC288	800m	80M§	4.5m	§J		80	40	6.0	5.0	10n§	2.0Ø	2.0 Ø	30 †△				45p	DPE	TO5	
42#	BFX69	800m	80M§	4.5m	§J		75	30	7.0		10nØ	5.0Ø	1.0mØ	55	12u	2.2k	3.6	18p	DPLØ	TO5	AØ
43▼	BSW66†	800m	80M†		§J							5.0Ø	10mØ	30 △				3.5p$Ø		TO39	AØ
44▼	BSW67†	800m	80M†		§J							5.0Ø	10mØ	30 △				35p$Ø		TO39	AØ
45▼	BSW68†	800m	80M†		§J							5.0Ø	10mØ	30 △				35p$Ø		TO39	AØ
46#	C426†	800m	80M§	4.5m	§J		60	30	5.0		100nØ	5.0Ø	1.0mØ	60	8.0u	1.8k	2.1	12p	DPE	TO5	Ø
47	FT34C†	800m	80M§△	4.5m	§J		150	80	6.0		10u§Ø	2.0Ø	2 Ø	85 †#				80pØ	DPE	TO5	AØ
48	FT34D†	800m	80M§△	4.5m	§J		120	60	6.0		10u§Ø	2.0Ø	2 Ø	210 †#				80pØ	DPE	TO5	AØ
49	TIS102	800m	80M§	5.3m	§S		180	180	5.0	100m	50nØ	10Ø	1.0mØ	40 †				2.7p	PE	TO39	AØ
50	TIS103	800m	80M§	5.3m	§S		150	150	5.0	100m	50nØ	10Ø	1.0mØ	45 †				2.7p	PE	TO39	AØ
51#	BFX69A	800m	84.M§	4.5m	§J		80	40	7.0		.01uØ	5.0Ø	1.0mØ	70	8.0u	1.8k	2.1	13p	DPLØ	TO5	AØ
52	BF174	800m	86.M§	4.5m	§J		150	150	6.0		.01uØ	10Ø	25mØ	20 △				2.6p	DPL	TO5	
53#	BFY56†	800m	86.M§	4.5m	§J		80	45	5.0		.05uØ	10Ø	.10mØ	40 †				12p	DPE	TO5	AØ
54#	BFY56A	800m	86.M§	4.5m	§J		80	55	7.0		.05uØ	1.0Ø	150mØ	70 †#				12p	PE	TO39	AØ
55	2N2440	800m	90M§△	4.5m	§J		120	80	7.0	500m	1.0nØ	10Ø	5.0mØ	70 △	500nØb	30 Ø	2.5 Ø	15pØ	△	TO5	AØ
56#	2SC308†	800m	90M§	4.5m	§J		100	60	5.0	500m	1.0uØ	10Ø	150mØ	65 †#				10p	PL△	TO5	AØ
57	2N1893A	800m	100M§△	4.5m	§J		140	80	7.0	500m	10nØ	5.0Ø	1.0mØ	30 △	500nØb	30 Ø	1.2	8.0pØ	△	TO5	AØ
58	2N2330Ø	800m	100M§△	5.3m	§S		30	20	5.0	500m	.01uØ	1.0Ø	10mØ	50 △				10pØ		TO5	AØ
59	2N3019	800m	100M§△	4.5m	§J		140	80	7.0	1	.01uØ	5.0Ø	1.0mØ	80 △				12pØ	Ø	TO5	AØ
60	JAN2N3019	800m	100M§△	4.5m	§J		140	80	7.0	1.0	10n§	5.0Ø	1.0mØ	80 △				12pØ	Ø	TO5	AØ
61#	2SC818	800m	100M§	6.7m	§J		160	120	5.0	100m	1.0uØ	10Ø	10mØ	20 †#△				4.5p	PL	TO5	AØ
62▼#	2SC995	800m	100M§		§J		300	300	5.0	100m	100nØ	10Ø	50mØ	80 †				5.5pØ	DPL	TO39	A
63▼#	BC286	800m	100M§	4.5m	§J		70	60	5.0	1.0	20n§	2.0Ø	500mØ	20 †△				12p	DPE	TO5	
64#	BC340-6	800m	100M§	4.5m	§J		40	40	5.0	500m	100m§	5.0Ø	50mØ	40 †△				10p	PE	TO39	AØ
65#	BC340-10	800m	100M§	4.5m	§J		40	40	5.0	500m	100m§	5.0Ø	50mØ	63 †△				10p	PE	TO39	AØ
66#	BC340-16	800m	100M§	4.5m	§J		40	40	5.0	500m	100m§	5.0Ø	50mØ	100 †△				10p	PE	TO39	AØ
67#	BC341-6	800m	100M§	4.5m	§J		60	60	5.0	500m	100m§	5.0Ø	50mØ	40 †△				10p	PE	TO39	AØ
68#	BC341-10	800m	100M§	4.5m	§J		60	60	5.0	500m	100m§	5.0Ø	50mØ	63 †△				10p	PE	TO39	AØ
69#	BF108	800m	100M§	4.5m	§S		135	135 §	3.0		1.0uØ	10Ø	30mØ	50 †				3pØ	PL	TO5	AØ
70#	BF305	800m	100M	4.5m			150	150	5.0	50m		10Ø	30mØ	20					PL	TO39	Ø
71#	BFX68A	800m	100M§	4.5m	§J		80	40	7.0		.01uØ	5.0Ø	1.0mØ	100	20u	5k	6.0	12p	DPLØ	TO5	AØ
72#	BSX22	800m	100M§	5.3m	§J		40	32	5.0	1.5		2.0Ø	500mØ	35 †△				20p	PE	TO5	
73#	BSX23	800m	100M§	5.3m	§J		90	65	5.0	1.5		2.0Ø	500mØ	35 †△				20p	PE	TO5	
74#	BSY51†	800m	100M§	4.5m	§J		60	25	5.0	500m	100nØ	10Ø	150mØ	40 †△				10p	PE	TO39	AØ
75#	BSY52†	800m	100M§	4.5m	§J		60	25	5.0	500m	100nØ	10Ø	150mØ	100 †△				10p	PE	TO39	AØ
76#	BSY53†	800m	100M§	4.5m	§J		75	30	7.0	750m	10nØ	10Ø	150mØ	40 †△				10p	PE	TO39	AØ
77#	BSY54†	800m	100M§	4.5m	§J		75	30	7.0	750m	10nØ	10Ø	150mØ	100 †△				10p	PE	TO39	AØ
78#	BSY55†	800m	100M§	4.5m	§J		120	80	7.0	500m	10nØ	10Ø	150mØ	40 †△				10p	PE	TO39	AØ
79#	BSY56†	800m	100M§	4.5m	§J		120	80	7.0	500m	10nØ	10Ø	150mØ	100 †△				10p	PE	TO39	AØ
80#	BSY87	800m	100M§	4.5m	§J		100	60	7.0	500m	10nØ	10Ø	150mØ	40 †△				10p	PE	TO39	AØ
81#	BSY88	800m	100M§	4.5m	§J		100	60	7.0	500m	10nØ	10Ø	150mØ	100 †△				10p	PE	TO39	AØ
82#	BSY90	800m	100M§	4.5m	§J		60	25	5.0	500m	10nØ	10Ø	150mØ	250 †△				10p	PE	TO39	AØ
83#	CP409†	800m	100M§	4.5m	§J		60	60	5.0	1	10uØ	10Ø	1 Ø	130 †#					DPE	TO5	AØ
84	RT1116†	800m	100M		§J		120	40 §	7.0		20nØ	1.0Ø	150mØ	30 †△				15 Ø	PE	TO5	Ø
85#	SFT187	800m	100M§	4.5m	§J		135	135 §	3.0		1.0uØ	10Ø	30mØ	50 †				3.0pØ		TO5	Ø
86	TN53	800m	100M§△	4.5m	§J		75	45	5.0	800m	10nØ	5.0Ø	1.0mØ	55	200nØb	35 Ø	1.2 Ø	8.0pØ	PE△	TO5	A
87	TN59†	800m	100M§△	4.5m	§J		40	30	5.0	800m	20nØ	5.0Ø	1.0mØ	140	100nØb	27	3.2	8.0pØ	PEØ	TO5	A
88	TN61†	800m	100M§△	4.5m	§J		40	30	5.0	800m	20nØ	5.0Ø	1.0mØ	50	900nØb	26	3.2	8.0pØ	PEØ	TO5	A
89#	BF119	800m	110M§	5.2m	§J		160	160 §	5.0	100m	50nØ	10Ø	30mØ	25 †△				3.5p	PE	TO39	AØ
90#	BF257	800m	110M§		§J		160	160	5.0	100m	50nØ	10Ø	30mØ	25 △†				5.5p	PE	TO5	A
91#	BF258	800m	110M§		§J		250	250	5.0	100m	50nØ	10Ø	30mØ	25 △†				5.5p	PE	TO5	A
92#	BF259	800m	110M§		§J		300	300	5.0	100m	50nØ	10Ø	30mØ	25 △†				5.5p	PE	TO5	A
93	2N4383	800m	120M§Ø	4.7m	§S		40	30	5.0	800m	10nØ	5.0Ø	1.0mØ	1.0kØ	200nØb	32 Ø		8.0pØ	Ø	TO5	A
94	2N4385	800m	120M§Ø	4.7m	§S		40	30	5.0	800m	10nØ	5.0Ø	1.0mØ	1.0kØ	200nØb	32 Ø		8.0pØ	Ø	TO5	A
95#	2SC309†	800m	120M§	4.5m	§J		120	80	5.0	500m	1.0uØ	10Ø	150mØ	65 †#				10p	PL△	TO5	AØ
96#	2SC310†	800m	120M§	4.5m	§J		140	100	5.0	500m	.01uØ	10Ø	150mØ	65 †#				10p	PL△	TO5	AØ
97#	2SC788	800m	120M§		§J		250	150	5.0	50m	.1uØ	5.0Ø	10mØ	100 †				4.0p	PL	TO5	A
98#	BF118	800m	120M§	5.0m	§J		250	240	5.0	100m	50nØ	10Ø	30mØ	25 †△				2.0p$	PL	TO5	A
99#	BFW45	800m	120M§	4.5m	§J		165	130	5.0	50m	.10uØ	20Ø	50mØ	20 △†				4p$	PL	TO39	AØ
100#	MA8001	800m	130M§△	4.7m	§J		40	30	5.0	800m	500nØ	10Ø	150mØ	30 †△#	15ub	4.9k	4.2	12pØ	PE△	TO5	
101#	MA8002	800m	130M§△	4.7m	§J		120	80	7.0	800m	10nØ	10Ø	150mØ	40 †△#	500nØb	30 Ø	1.5 Ø	10pØ	PE△	TO5	
102#	MA8003	800m	130M§△	4.7m	§J		80	60	7.0	800m	10nØ	10Ø	150mØ	100 †△#	500nØb	30 Ø	1.5 Ø	10pØ	PE△	TO5	
103	2N1837A†	800m	140M§△	5.3m	§J		80	30	8.0	500m	.50uØ	10Ø	150mØ	40 †△				18pØ		TO5	AØ
104	2N2863	800m	150M§△	4.5m	§S		60	25	5.0	1	.50uØ	15Ø	10mØ	20 †△				13pØ		TO5	AØ
105	2N2864	800m	150M§△	4.5m	§S		60	25	5.0	1	.50uØ	15Ø	10mØ	12 †△				13pØ		TO5	AØ
106	2N2939	800m	150M§△	33m	▼S		75	60	7.0	1.0	25nØ	10Ø	150mØ	240 †△				10pØ		TO5	A
107	2N2940	800m	150M§△	33m	▼S		120	80	7.0	1.0	25nØ	10Ø	150mØ	240 †△				10pØ		TO5	A
108	2N2941	800m	150M§△	33m	▼S		150	100	7.0	1.0	25nØ	10Ø	150mØ	60 †△#				12pØ		TO5	AØ
109	2N3554†	800m	150M§△	4.5m	§S		60	30	5.0	1.2	.5u§	1.0Ø	750mØ	25 †△				25pØ		TO5	AØ
110	2N4943	800m	150M§△	4.5m	§S		120	80	7.0	1	.01uØ	10Ø	150mØ	100 †△				12pØ		TO5	AØ

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T E M A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O D E
1#	2SC59	800m	150M§	5.3m	§J	120	60	6.0	300m	.50uØ	10Ø	150mØ	35 †#				10p	PE	TO5		
2#	2SC306†	800m	150M§	4.5m	§J	50	30	5.0	500m	1.0uØ	10Ø	150mØ	85 †#				10p	PL△	TO5	A	Ø
3#	2SC503	800m	150M§	5.6m	§J	60	50	5.0	600m	.50uØ	2.0Ø	150mØ	70 †				13p	PE	TO39		
4#	2SC504	800m	150M§	4.0m	§J	40	30	5.0	600m	1.0uØ	2.0Ø	150mØ	70 †				13p	PE	TO39		
5#	2SC560	800m	150M§	6.7m	§J	80	60	5.0	800m	.50uØ	2.0Ø	150mØ	60 †				15p	PE	TO39		
6	MM1803	800m	150M§△	6.7m	§J	50	25	5.0	150m	1.0u	2.0Ø	400mØ	5.0 †△				40pØ	EA	TO5	A	
7#	2SC49	800m	160M§	5.3m	§J	120	70	6.0	300m	.50uØ	10Ø	150mØ	70 †#				10p	PE	TO5		
8#	2SC69	800m	160M§	5.3m	§J	120	60	6.0	300m	.50uØ	10Ø	150mØ	50 †#				10p	PE	TO5		
9#	2SC590	800m	160M§	5.3m	§J	120	70	5.0	300m	1.0uØ	10Ø	150mØ	70 †#				10p	PE	TO5	A	Ø
10#	BSY71	800m	160M	4.5m	§J	75	50 §	7.0		10nØ	10Ø	150mØ	130 †#	23u	4.4k	7.3	25pØ	PL△	TO5		Ø
11#	2SC686	800m	180M§		§J	150	150	6.0	50m	.01u	10Ø	25mØ	90				2.6p	PE	TO5		
12#	SFT186	800m	180M§	5.3m	§S	140	140	3.0		2.0uØ	10Ø	30mØ	40 †				3pØ	ME	TO5	A	Ø
13	2N2410†	800m	200M§△	4.5m	§J	60	30	5.0	800m	.30uØ	10Ø	10mØ	30 †#△				11pØ		TO5	A	Ø
14	2N5211	800m	200M§△	4.5m	§C	80	80	4.0	600m	10u♦Ø	5.0Ø	200mØ	10 †△				12pØ		TO39	A	Ø
15#	2SC307†	800m	200M§	4.5m	§J	80	40	5.0	500m	.01uØ	10Ø	150mØ	85 †#△				10p	PL△	TO5	A	Ø
16#	2SC774	800m	200M§	4.5m	§J	50	50 §	4.0	500m	10uØ	10Ø	100mØ	20 †#△				10p	PE	TO39	A	Ø
17#	2SC775	800m	200M§	4.5m	§J	75	75 §	4.0	1	10uØ	10Ø	100mØ	5 †#△				12p	PE	TO39	A	Ø
18#	BSW27†	800m	200M§△	4.5m	§J	60	50	4.0	1	.50uØ	2.0Ø	500mØ	30 †△				10pØ	PL	TO18	A	Ø
19#	BSW28†	800m	200M§△	4.5m	§J	60	50	4.0	1	.50uØ	2.0Ø	500mØ	20 †△				10pØ	PL	TO5	A	Ø
20#	SFT445	800m	200M§	5.2m	§S	80	80 §	5.0		1.0uØ	10Ø	20mØ	40 †				8.0pØ	PL	TO5		Ø
21	TN81	800m	200M§△	4.8m	§J		20	5.0		.10u	1.0Ø	10mØ	40 †△				8pØ	PE	L10		
22	JAN2N1506A	800m	210M§△	4.5m	§S	80	80 §	5.0		50nØ	28Ø	100mØ	20 †△#				12pØ		TO5	A	Ø
23	2N1409A	800m	230M		§J	30	25 §	4.0	500m	10uØ	10Ø	150m	45				35pØ	PL△	TO5	A	
24	2N1410A†	800m	230M		§J	45	30 §	4.0	500m	10uØ	10Ø	150m	60 †				12p	ME	TO5	A	
25	SE8041	800m	230M§	4.5m	§J	30	30	6.0	1.0	50nØ	1.0Ø	150mØ	70 †#				9.0p$	DPL	TO39	A	
26	2N2217	800m	250M§△	5.3m	§J	60	30	5.0	800m	.01uØ	10Ø	1.0mØ	12 †△				8pØ		TO5	A	Ø
27	2N2218	800m	250M§△	5.3m	§J	60	30	5.0	800m	.01uØ	10Ø	1.0mØ	25 †△				8pØ		TO5	A	Ø
28	JAN2N2218†	800m	250M§△	5.2m	§S	60	30	5.0	800m	10nØ	10Ø	1.0mØ	25 △				8.0pØ		TO5	A	Ø
29	2N2218A†	800m	250M§△	5.3m	§J	75	40	6.0	800m	.01uØ	10Ø	1.0mØ	30 △	15uØ	3.5kØ	5 Ø	8pØ	Ø	TO5	A	Ø
30	JAN2N2218A†	800m	250M§△	5.2m	§S	75	50	6.0	800m	10nØ	10Ø	1.0mØ	30 △				8.0pØ		TO5	A	Ø
31	2N2219	800m	250M§△	5.3m	§J	60	30	5.0	800m	.01uØ	10Ø	1.0mØ	50 †△				8pØ		TO5	A	Ø
32	JAN2N2219†	800m	250M§△	5.2m	§S	60	30	5.0	800m	10nØ	10Ø	1.0mØ	50 △				8.0pØ		TO5	A	Ø
33	JAN2N2219A†	800m	250M§△	5.2m	§S	75	50	6.0	800m	10nØ	10Ø	1.0mØ	50 △				8.0pØ		TO5	A	Ø
34	2N2224	800m	250M§△	5.3m	§J	65	40	5.0	500m	10nØ	10Ø	100uØ	35 †△#				8.0pØ	△	TO5	A	Ø
35	2N2537†	800m	250M§△	4.5m	§J	60	30	5.0	800m	.25uØ	10Ø	1.0mØ	20 †△				8pØ		TO5	A	Ø
36	2N2538†	800m	250M§△	4.5m	§J	60	30	5.0	800m	.25uØ	10Ø	1.0mØ	30 †△				8pØ		TO5	A	Ø
37	2N2787†	800m	250M§△	5.2m	§J	75	35	5.0	800m	10nØ	20Ø	20mØ	30 △	200nØb	35 Ø	15 Ø	8.0pØ		TO5	A	Ø
38	2N2788†	800m	250M§△	5.2m	§J	75	35	5.0	800m	10nØ	20Ø	20mØ	75 △	200nØb	35 Ø	2.0 Ø	8.0pØ		TO5	A	Ø
39	2N2789†	800m	250M§△	5.2m	§J	75	35	5.0	800m	10nØ	20Ø	20mØ	150 △	200nØb	35 Ø	2.5 Ø	8.0pØ		TO5	A	Ø
40	2N2846†	800m	250M§△	4.5m	§J	60	30 *	5.0		.20u§	10Ø	150mØ	30 †△#				8pØ		TO5	A	Ø
41	2N2848†	800m	250M§△	4.5m	§J	60	20 *	5.0		.20u§	10Ø	150mØ	40 †△#				8pØ		TO5	A	Ø
42	2N3015†	800m	250M§△	4.5m	§J	60	30 *	5.0		.20u§	10Ø	150mØ	30 †#△				8pØ		TO5	A	Ø
43	2N3299†	800m	250M§△	4.5m	§J	60	30	5.0	500m	.01u§	10Ø	.10mØ	20 △				8pØ		TO5	A	Ø
44	2N3300†	800m	250M§△	4.5m	§J	60	30	5.0	500m	.01u§	10Ø	10mØ	35 △				8pØ		TO5	A	Ø
45	2N3326†	800m	250M§△	5.3m	§J	60	45	5.0	800m	.01uØ	10Ø	10mØ	35 †△				8pØ		TO5	A	Ø
46	2N3512†	800m	250M§△	4.5m	§S	60	35	5.0			1.0Ø	500mØ	10 †#△				10pØ		TO5	A	Ø
47	2N3678†	800m	250M§△	4.5m	§J	75	55	6.0	800m	.01uØ	10Ø	150mØ	40 †#△				8pØ		TO5	A	Ø
48	2N4046†	800m	250M§△	4.5m	§J	50	30	6.0	500m	1.7uØ	1.0Ø	100mØ	150 †#Ø				12pØ		TO5	A	Ø
49	2N4047†	800m	250M§△	4.5m	§J	80	50	6.0	500m	1.7uØ	1.0Ø	100mØ	150 †#Ø				10pØ		TO5	A	Ø
50	2N4960†	800m	250M§△	4.5m	§J	60	60	6.5	1	.01uØ	10Ø	1.0mØ	60 †△				15p$		TO39	A	Ø
51	2N4962†	800m	250M§△	2.9m	§J	60	60	6.5	1	.01uØ	10Ø	1.0mØ	60 †△				15p$		TO18	A	Ø
52#	2SC97†	800m	250M§	5.3m	§J	60	30	5.0	1	1.0uØ	10Ø	150mØ	60 †#				20pØ	PE	TO5		
53#	2SC502	800m	250M§	6.7m	$J	60	60 §	5.0	1	10uØ	5.0Ø	200mØ	30				13p	PE	TO39		
54#	BFX17	800m	250M§△	4.5m	§J	60	40	6.0	1.0	2.0uØ	1.0Ø	100mØ	35 †△				12pØ	PE	TO5		Ø
55#	BFX96	800m	250M△§	4.5m	§J	60	30	5.0	800m	.01uØ	10Ø	150mØ	40 †△#				8pØ	PE	TO5	A	Ø
56#	BFX97	800m	250M△§	4.5m	§J	60	30	5.0	800m	.01uØ	10Ø	150mØ	100 †△#				8pØ	PE	TO5	A	Ø
57	PT4816	800m	250M§	5.3m	§J	60	30	4.0		.05uØ	10Ø	10mØ	40 †△					PE	TO5		
58	2N2219A†	800m	300M§△	5.3m	§J	75	40	6.0	800m	.01uØ	10Ø	1.0mØ	40 △	35uØ	8.0kØ	8 Ø	8pØ	Ø	TO5	A	Ø
59	2N3722†	800m	300M§△	4.5m	§J	80	60	6.0	500m	.50u§Ø	1.0Ø	10mØ	25 †#△				10pØ		TO5	A	Ø
60	2N3723†	800m	300M§△	4.5m	§J	100	80	6.0	500m	.50u§Ø	1.0Ø	10mØ	25 †#△				9pØ		TO5	A	Ø
61	2N3724†	800m	300M§△	4.5m	§J	50	30	6.0	500m	1.7uØ	1.0Ø	100mØ	60 †#△				12pØ		TO5	A	Ø
62	2N3725†	800m	300M§△	4.5m	§J	80	50	6.0	500m	1.7uØ	1.0Ø	100mØ	60 †#△				10pØ		TO5	A	Ø
63	2N5145§	800m	300M§△	4.5m	§J	50	30	6.0	500m	1.7uØ	1.0Ø	10mØ	30 †#△				12p$Ø	△	TO39	A	Ø
64#	MT181	800m	300M§	4.5m	§J	60		5.0	200m	1.0u	10Ø	1.0mØ	60				4.0p	PE	R81h	A	
65	SE8010	800m	300M§△	4.5m	§J	100	60 *Ø	6.0	500m	.50u§	1.0Ø	100mØ	40 †#△				9p$Ø	DPE	TO39	A	Ø
66#	BSX30†	800m	330M§	4.5m	§J	60	30	5.0		200n§	10Ø	150mØ	63 †#				5.0p	DPE	TO5		Ø
67#	2SC97A†	800m	350M§	5.3m	§J	80	45	5.0	1	.50u§	1.0Ø	500mØ	40 †#△				10pØ	PE	TO39	A	Ø
68#	2SC319	800m	350M§△	5.3m	§J	40	20	4.0	300m	1.0uØ	10Ø	100mØ	20 †#△				10pØ	PE	TO33		
69#	2SC781	800m	350M§		§J	75	40	5.0	1	1.0uØ	10Ø	150mØ	80 †				11p	PE	TO5		
70#	BFY72	800m	350M§	3.4m	§J	50	28	5.0		20n§	10Ø	10mØ	90	55u	460	1.3	5.0p	DPE	TO5		Ø
71#	2N2217A	800m	400M§	5.6m	§J	75	40	6.0		.01uØ	10Ø	150mØ	40 †#				4.0p		TO5	A	
72	2N2883	800m	400M§△	4.5m	§J	40	20	4.0	300m	.50uØ	10Ø	100mØ	20 †#△				10p	PE	TO5	A	Ø
73	2N2884	800m	400M§△	4.5m	§J	40	20	4.0	300m	.50uØ	10Ø	100mØ	20 †#△				10p	PE	TO5	A	Ø
74	2N5188†	800m	400M§△	4.5m	§S	60	25	5.0	1	.50uØ	.50Ø	150mØ	25 †△						TO39	A	Ø
75#	2SC138	800m	400M§	5.3m	§J	60	30	5.0	500m	1.0uØ	10Ø	30m	50				4.0p	PE	TO33		
76#	2SC138A	800m	400M§		§J	60	35	5.0	500m	1.0uØ	10Ø	30m	50				4.0p	PE	TO33		
77#	2SC139	800m	400M§	5.3m	§J	60	30	5.0	500m	1.0uØ	10Ø	30m	50				4.0p	PE	TO33		
78#	2SC320	800m	400M§△	5.3m	§J	40	20	4.0	500m	1.0uØ	10Ø	100mØ	20 †#△				10pØ	PE	TO33		
79#	2SC596	800m	400M§		§J	60	30	5.0	500m	.50uØ	10Ø	30m	50				6.0p	PE	TO33		
80#	BSX32†	800m	450M§	4.5m	§J	65	40	6.0	1.0	4.0uØ	1.0Ø	10mØ	60 †#				5.0p	DPE	TO5		Ø
81#	BSX59†	800m	475M§	4.5m	§J	70	45	5.0	1	.50uØ	1.0Ø	500mØ	25 †△				5.8p	PE	TO5	A	Ø
82#	BSX60†	800m	475M§	4.5m	§J	70	30	5.0	1	.50uØ	1.0Ø	500mØ	30 †△				5.8p	PE	TO5	A	Ø
83#	BSX61†	800m	475M§	4.5m	§J	70	45	5.0	1	.50uØ	1.0Ø	500mØ	25 †△				5.8p	PE	TO5	A	Ø
84	2N4896†	800m	500M§△	4.5m	§J	120	60	6.0	5	1m§	2.0Ø	2 Ø	120 †Ø				80pØ		TO39	A	Ø
85	2N4897†	800m	500M§△	4.5m	§J	150	80	6.0	5	1m§	2.0Ø	2 Ø	120 †Ø				80pØ		TO39	A	Ø
86#	2SC566	800m	500M§△		§J	50	40	4.0	300m	.20uØ	10Ø	100mØ	50 †#△				4pØ	PE	TO33		
87#	2SC654	800m	500M§△		§J	40	35	3.0	300m	.20uØ	15Ø	50m	40 △				3.5pØ	PE	TO33		
88#	2SC741	800m	500M§	4.5m	§J	40	40 §	3.0	300m	1.0uØ	10Ø	100mØ	30 †#				3p	PE	TO39	A	Ø
89	2N4895†	800m	800M§△	4.5m	§J	120	60	6.0	5	1m§	2.0Ø	2 Ø	300 †Ø				80pØ		TO39	A	Ø
90	2N5106§	800m	900M§Ø	4.5m	§J	60	30	5.0	500m	.01uØ	10Ø	150mØ	100 †#△				8p$Ø	△	TO39	A	
91	2N2850-1†	850m$	30k§△	66m	§S	100	80	5.0	3.0		1.0Ø	1.0	40 †△#					PE	MT26	A	Ø
92	2N2851-1†	850m$	30k§△	66m	§S	100	80	5.0	3.0		1.0Ø	1.0	40 †△#					PE	TO5	A	Ø
93	2N2852-1†	850m$	30k§△	66m	§S	100	80	5.0	3.0		1.0Ø	1.0	20 †△#					PE	TO5	A	Ø
94	2N2853-1†	850m$	30k§△	66m	§S	60	40	5.0	3.0		1.0Ø	1.0	40 †△#					PE	TO5	A	Ø
95	2N2855-1†	850m$	30k§△	66m	§S	60	40	5.0	3.0		1.0Ø	1.0	40 †△#					PE	TO5	A	Ø
96	2N2856-1†	850m$	30k§△	66m	§S	60	40	5.0	3.0		1.0Ø	1.0	20 †△#					PE	TO5	A	Ø
97	2N2849†	850m	30M§△	5.0m	§S	100	80	5.0	3.0	100n§	1.0Ø	1.0 Ø	100 †△#				125pØ		R61		Ø
98	2N2850†	850m	30M§△	5.0m	§S	100	80	5.0	3.0	100n§	1.0Ø	1.0 Ø	40 †△#				125pØ		R61		Ø
99	2N2851†	850m	30M§△	5.0m	§S	100	80	5.0	3.0	100n§	1.0Ø	1.0 Ø	40 †△#				125pØ		R61		Ø
100	2N2852†	850m	30M§△	5.0m	§S	100	80	5.0	3.0	100n§	1.0Ø	1.0 Ø	20 †△#				125pØ		R61		Ø
101	2N2853†	850m	30M§△	5.0m	§S	60	40	5.0	3.0	100n§	1.0Ø	1.0 Ø	40 †△#				125pØ		R61		Ø
102	2N2854†	850m	30M§△	5.0m	§S	60	40	5.0	3.0	100n§	1.0Ø	1.0 Ø	100 †△#				125pØ		R61		Ø
103	2N2855†	850m	30M§△	5.0m	§S	60	40	5.0	3.0	100n§	1.0Ø	1.0 Ø	40 †△#				125pØ		R61		Ø
104	2N2856†	850m	30M§△	5.0m	§S	60	40	5.0	3.0	100n§	1.0Ø	1.0 Ø	20 †△#				125pØ		R61		Ø
105	2849-1	850m	50.M§	5.0m	§A	100	80	5.0	3	.10u§	1.0Ø	50mØ	90 †				60p	PL	TO5	A	Ø
106	2849-2	850m	50.M§	5.0m	§A	100	80	5.0	3	.10u§	1.0Ø	50mØ	90 †				60p	PL	MT26	A	Ø
107	2849-3	850m	50.M§	5.0m	§A	100	80	5.0	3	.10u§	1.0Ø	50mØ	90 †				60p	PL	MT32	A	Ø
108	PT2540	850m	150M§△	4.8m	§J	60	40	4.0	800m	10uØ	10Ø	150m	15 †△				30pØ	PE	TO5		
109▼#	BC216A	860m	70M§	2.0m	§J	45	45	6.0	20m	15n	5.0Ø	10uØ	40 †△	17m	3.0k			DPL	TO18		
110▼#	BC216B	860m	70M§	2.0m	§J	45	45	6.0	20m	15n	5.0Ø	10uØ	40 †△	30m			3.2p	DPL	TO18		

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 DERATE IN FREE AIR W/°C	fab (Hz)	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CODE
1#	SE8001	870m	5.0m	40M§Δ	§J	60	30	5.0		.10uØ	1.0Ø	150mØ	20 †#Δ				25pØ	PE	TO5	AØ
2	SE8002	870m	5.0m	40M§Δ	§J	80	40	5.0		.01uØ	1.0Ø	150mØ	40 †#Δ				25pØ	PE	TO5	AØ
3	PT2523	870m	33mØ	50.M§	§J	180	140 §	5.0	500m	.01uØ	50Ø	10mØ	20 †Δ				6pØ		TO5	
4	PT2524	870m	33mØ	50.M§	§J	200	180 §	5.0	500m	.01uØ	50Ø	10mØ	20 †#Δ				6pØ		TO5	
5	2N699B	870m	5.0m	60M§Δ	§J	120	80 *	7.0		10nØ	5.0Ø	1.0mØ	35 Δ	500nØb	30 Ø	1.3 Ø	15pØ	Δ	TO5	AØ
6	BFX34†	870m	5.0m	100M§	§J	120	60	6.0		10uØ	2.0Ø	2 Ø	80 †#				40p	DPE	TO5	
7#	BF186	875m	5.0m	120M§	§J	165	165 §	5.0	50m	4m*	20Ø	40mØ	50 †					PE	TO39	AØ
8▼	2N5702	880mØ	20m		§S	36	18	3.0	500m	1.0mΔ	5.0Ø	50mØ	15 †Δ				20pØ		TO39	AØ
9#	BSY81	900m	5.1m	100M§	§J	40	18	5.0	1.0	100mØ	10Ø	150mØ	40 †Δ				15pØ	PE	TO39	AØ
10#	BSY82	900m	5.1m	100M§	§J	40	18	5.0	1.0	100mØ	10Ø	150mØ	100 †Δ				15pØ	PE	TO39	AØ
11#	BSY83	900m	5.1m	100M§	§J	80	35	7.0	1.0	10mØ	10Ø	150mØ	40 †Δ				15pØ	PE	TO39	AØ
12#	BSY84	900m	5.1m	100M§	§J	80	35	7.0	1.0	10mØ	10Ø	150mØ	100 †Δ				15pØ	PE	TO39	AØ
13#	BSY85	900m	5.1m	100M§	§J	120	64	7.0	1.0	10mØ	10Ø	150mØ	40 †Δ				15pØ	PE	TO39	AØ
14#	BSY86	900m	5.1m	100M§	§J	120	64	7.0	1.0	10mØ	10Ø	150mØ	100 †Δ				15pØ	PE	TO39	AØ
15	2N339	1.0 Ø	7.6m		§J	55	55	1.0	60m	1.0uØ	10	5.0m	50	2.0uØb	30 Ø	3.0 Ø	30p	G	TO11	A
16	2N340	1.0 Ø	7.6m		§J	85	85	1.0	60m	1.0uØ	10	5.0m	50	2.0uØb	30 Ø	3.0 Ø		G	TO11	A
17	2N341	1.0 Ø	7.6m		§J	125	85	1.0	60m	1.0uØ	10	5.0m	50	2.0uØb	30 Ø	3.0 Ø		G	TO11	A
18	2N342	1.0 Ø	7.6m		§J	60	60	1.0	60m	1.0uØ	10	5.0m	20	2.0uØb	30 Ø	3.0 Ø		G	TO11	A
19	2N342A	1.0 Ø	7.6m		§J	85	85	1.0	60m	1.0uØ	10	5.0m	20	2.0uØb	30 Ø	3.0 Ø		G	TO11	A
20	2N343	1.0 Ø	7.6m		§J	60	60	1.0	60m	1.0uØ	10	5.0m	50	2.0uØb	30 Ø	3.0 Ø		G	TO11	A
21	JAN2N342	1.0 Ø	8.3m	1.0MΔ	§J	60	60	1.0	60m	1.0uØ	10	5.0m	9.0 Δ	2.0uØb	30 Ø	3.0 Ø			TO11	A
22	JAN2N342A	1.0 Ø	8.3m	1.0MΔ	§J	85	85	1.0	60m	1.0uØ	10	5.0m	9.0 Δ	2.0uØb	30 Ø	3.0 Ø			TO11	A
23	JAN2N343	1.0 Ø	8.3m	1.0MΔ	§J	60	60	1.0	60m	1.0uØ	10	5.0m	28 Δ	2.0uØb	30 Ø	3.0 Ø			TO11	A
24	2N342B	1.0 Ø	7.6m	6.0M	§J	85	85	2.0	60m	1.0uØ	10Ø	5.0m	21	2.0uØb	30 Ø	3.0 Ø	20pØ	G	TO11	AØ
25	2N343B	1.0 Ø	7.6m	6.0M	§J	65	65	2.0	60m	1.0uØ	10Ø	5.0m	59	2.0uØb	30 Ø	3.0 Ø	20pØ	G	TO11	AØ
26#	2SC802†	1.0 Ø	6.6m	180M§	§J	60	35	4.0	500m	5.0uØ	4.0Ø	150mØ	30 †				5.0p	PL	TO5	
27	BF140R,S	1.0 Ø	5.5m	180M§	§S	135		3.0		1.0uØ	10Ø	10mØ	40 †					PL	ZA29	Ø
28	BF155R,S	1.0 Ø	5.5m	180M§	§S	155		3.0		1.0uØ	10Ø	10mØ	40 †					PL	ZA29	Ø
29	2N3833	1.0 Ø	6.6m	1.0G§Δ	§S	25	15	1.0	100m	20n§	12Ø	30mØ	20 †#				1.7p$		X60	§
30	2N3834	1.0 Ø	6.6m	1.0G§Δ	§S	25	15	1.0	100m	20n§	12Ø	30mØ	20 †#				1.7p$		X60	§
31	2N3835	1.0 Ø	6.6m	1.0G§Δ	§S	25	15	1.0	100m	20n§	12Ø	30mØ	20 †#				1.7p$		X60	§
32	KD4002	1.0 #	6.6mØ	1.2G§Δ	§J	40	25	2.5	120M	1.0uØ	6.0Ø	50mØ	20 †Δ				3.5pØ		X72	V
33	KD4001	1.0 #	6.6mØ	1.5G§Δ	§J	40	25	2.5	120m	1.0uØ	6.0Ø	50mØ	20 †Δ				3.5pØ		X72	V
34	KD4501	1.0 Ø	5.5m	1.5G	§J	30	12	2.5	120m	300nØ	10	50mØ	30 †Δ				3.5pØ		X72	U
35	KD4502	1.0 Ø	5.5m	1.5G	§J	25	12	2.5	120m	300nØ	10	50mØ	30 †Δ				3.5pØ		X72	U
36	2N717A†	1.8 Ø		200M§		75		7.0										PL	TO18	
37	PT850	2.0 Ø	4.0m	120M§	§J	120	80	5.0	500m	2.0uØ	10Ø	150mØ	40 †Δ#				20p	PL	TO5	AØ
38	PT850A	2.8 Ø	5.2m	120M§	§J	120	80	5.0	500m	2.0uØ	10Ø	150mØ	40 †Δ#				20p	PL	TO5	AØ
39	2N339A	3.0 Ø		10M§Δ	▼S	60	60	3.0		1.0uØ	10Ø	1.0m	53	2.0ub	30	3.0			TO11	A
40	2N340A	3.0 Ø		10M§Δ	▼S	85	85	3.0		1.0uØ	10Ø	1.0m	53	2.0ub	30	3.0			TO11	A
41	2N341A	3.0 Ø		10M§Δ	▼S	125		3.0		1.0uØ	10Ø	1.0m	53	2.0ub	30	3.0			TO11	A
42	2N1206	3.0 Ø	2.8m	20M	§J	60	60	3.0		1.0uØ	10Ø	5.0m	35	2.0ub	30	3.0			TO5	A
43	2N1207	3.0 Ø	2.8m	20M	§J	125	125	3.0		1.0uØ	10Ø	5.0m	35	2.0ub	30	3.0			TO5	A
44#	BFS10	5.0 Ø		500M§Δ		55	30	3.5			5.0Ø	50mØ	120 †#				3.0pØ			
45	2N3832†	200	1.1	800M§Δ	§S	15	6.0	4.0	35m	10n§	.50Ø	2.0mØ	125 †Ø						TO72	G

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

6. SILICON FIELD EFFECT TRANSISTORS - P CHANNEL

IN ORDER OF (1) DISSIPATION (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. DEVICE DISS @25°C (W)	MAX. Vp @ Id=0 (V)	MAX. Vp & Vds (V)	ABS MAX RATINGS@25°C BVdss (V)	BVgss (V)	Id (A)	Ig (A)	MAX. Id(ON)@ Vgs=0& Vds>Vp (A)	MAX. Igss@ Vgs>Vp &Vds=0 (A)	PARAMETERS @25°C TEST COND Vgs (V)	Vds (V)	COMMON SOURCE gfs (mhos) MIN	gfs (mhos) MAX	Yos mhos	Rds (Ω)	MAX. Cis (F)	DERATE IN FREE AIR W/°C	MAX TEMP (°C)	DESCRIPTION STRUCTURE	DWG. No.	L C E O A D D E
1	MEM517B		5.0Δ		30	25			.05n				1.2mΔ							*	TO5	
2	2N3573	6.0m†	2.0†	10		25		1.0m	.10m	.60n	0.0	10	.10m	.30m	4.0u%		6.0p#	2.0m	200S		TO72	DG
3	2N3698	7.5m†	1.1	20		30	.25m	50m	.25mΔ	.10n	0.0	20	.25m	.75m	3.0u%		5.0p#	2.0m	200S	Ø	TO72	DG
4	2N3277	12.m†	5.0†	10	25	25	.50m	10m		.40n	0.0	10	.10m		2.0u	500k	4.5p#		200S		TO33	DG
5	2N3574	18m†	2.0†	10		25		1.0m	380u	600p	0.0	10	200u	600u	10u%		6.0p#	2.0m	200S		TO72	DG
6	2N3697	18m†	1.8	20		30	.60m	50m	.60mΔ	.10n	0.0	20	.50m	1.0m	6.0u%		5.0p#	2.0m	200S	Ø	TO72	DG
7	2N3328	20m†	6.0†	10		20		1.0m	1.0m	1.0n	0.0	10	.10m				4p#%	2.0m	200S		TO72	DG
8	2N3333Ø	20m†	1.6†	10	20	20		10m	1.0m	10n	0.0	10	.60m	1.8m	15u		30p#	2.0m	200S		L21c	
9	2N3334Ø	20m†	1.6†	10	20	20		10m	1.0m	10n	0.0	10	.60m	1.8m	15u		30p#	2.0m	200S		L21c	
10	2N3335Ø	20m†	1.6†	10	20	20		10m	1.0m	10n	0.0	10	.60m	1.8m	15u		30p#	2.0m	200S		L21c	
11	2N3336Ø	20m†	1.6†	10	20	20		10m	1.0m	10n	0.0	10	.60m	1.8m	15u		30p#	2.0m	200S		L21c	
12	2N3278	22.m†	8.0†	10	25	25	.90m	10m		.40n	0.0	10	.15m		10u	100k	4.5p#		200S		TO33	DG
13	2N3575	40m†	4.0†	10		25		1.0m	1.0m	.60n	0.0	10	.30m	.90m	20u%		6.0p#	2.0m	200S		TO72	DG
14	2N3696	45m†	3.2	20		30	1.5m	50m	1.5mΔ	.10n	0.0	20	.75m	1.2m	15u%		5.0p#	2.0m	200S	Ø	TO72	DG
15	2N3113	50m	4.0	5.0		20	10m	10m	180uΔ	50p	0.0	5.0	50u		120u		2.0p#		200S		TO18	DAØ
16	UC420	75m†	2.5	20		30Δ			2.5mΔ	.01n	0.0	20	1.0m			.70k	8.0p		200J	PE	TO72	DG
17	MEM550C	85m	6.0Δ	*	25	25	25m	100u		1.0n	10	10	500u			18k	4.0pt*	1.1m	100	*	TO77	
18	MEM551C	85m	6.0Δ	*	25	25	25m			10p	10	10	500u			18k	4.0pt	1.1m	100	*	TO77	
19	2N3610	100m	7.0Δ	*	20	20			600u	20p						2.5k%		15m	150S	☑	TO72	DP
20	2SJ11	100m	5.0	10		20		10m	900u	1.0n	0.0	10	100uΔ	600uΔ			2.0p*		150	PE	TO17	
21	2SJ12	100m	5.0	10		20		10m	.90m	.10n	0.0	10	.10mΔ	.6mΔ			2.0p*		150	PE	TO17	
22▼	3N178	100m	5.5Δ	10*	75	75Δ	20m	1.0m	3.0m#Ø							750	3.5p#	660m	200S	☑*	TO72	DM
23▼	3N179	100m	6.0Δ	10*	60	60Δ	20m	1.0m	3.0m#Ø							1.0k	4.5p#	660m	200S	☑*	TO72	DM
24▼	3N180	100m	6.0Δ	10*	40	40Δ	20m	1.0m	3.0m#Ø							1.2k	5.0p#	660m	200S	☑*	TO72	DM
25#	3SJ11†	100m	6.5Δ	*	30	30	10m		100n		10	10	300u			1.0k†	5.0p#*	1.0m	150S	PL*	TO72	DU
26▼	MEM300	100m	5.5Δ	10*	75	75	20m	100u	500p							750	3.5p#	660u	200S	*☑	TO72	DM
27▼	MEM301	100m	6.0Δ	10*	60	60	20m	100u	1.0n							1.0k	4.5p#	660u	200S	*☑	TO72	DM
28▼	MEM302	100m	6.0Δ	10*	40	40	20m	100u	1.0n							1.2k	5.0p#	660u	200S	*☑	TO72	DM
29	MEM556	100m	6.0Δ	*	80	80	20m	100u	1.0u	1.0n	15	20	800u%	950uΔ		700 †	500ft	1.0m	125J	☑*	TO72	DM
30	MEM556C	100m	6.0Δ	*	70	70	20m	100u		1.0n	15	20	950mΔ				700ft	1.0m	100	*	TO72	DM
31	2N3695	112m†	4.5	20		30	3.7m	50m	3.7mΔ	100u	0.0	20	1.0m	1.7m	35u%		5.0p#	2.0m	200S	Ø	TO72	DG
32	MEM550*	112m	6.0Δ	*	30	25	25m	100u	5.0m*	1.0n	10	10	500u			18k	1.1pt*	890u	125J	*	L53	
33	MEM551*	112m	6.0Δ	*	30	40	25m		5.0m*	4.0p	10	10	500u			250	1.1pt*	890u	125J	*	L54	
34♦	SD5014*	112m	6.0†	*	100	50	25m	100u	5.0 Ø*	1.0n	10	10	500u			850 Δ	1.1pt*	1.1m	125J	*☑	L53	
35♦	SD5015*	112m	6.0†	*	100	80	25m	100u	5.0 Ø*	3.0p	15	15	500u			850 Δ	1.1pt*	1.1m	125J	*☑	L54	
36	2N3377	150m	5.0	5.0		30	100m	50m	6m%Δ	3.0n	0.0	10	.80m	2.3m†		1.5k†	2.0pΔ	1.0m	200S		u22	
37	2N3379	150m	5.0	5.0		30	100m	50m	6m%Δ	3.0n	0.0	10	1.5m	2.3m†		.75k†	2.0pΔ	1.0m	200S		u22	
38	2N3381	150m	9.5	5.0		30	100m	50m	20m%Δ	3.0n	0.0	10	1.5m	3m†		.60k†	2.0pΔ	1.0m	200S		u22	
39	2N3383	150m	5.0	5.0		30	100m	50m	30m%	15n	0.0	10	4.5m	13m†		.30k†	5.0pΔ	1.0m	200S		u22	
40	2N3385	150m	5.0	5.0		30	100m	50m	30m%	15n	0.0	10	7.5m	13m†		.18k†	5.0pΔ	1.0m	200S		u22	
41	2N3387	150m	9.5	5.0		30	100m	50m	50m%Δ	15n	0.0	10	7.5m	15m†		.15k†	7.0pΔ	1.0m	200S		u22	
42	3N151▼	162m	6.0Δ	10*	30	30Δ	25m		3.0m		2.0Ø	10	500u	3.0n	120u		12p#	1.6m	150S	*	L53	
43	MEM511C	175m	6.0Δ	*	25	25	50m	100u		1.0n	10	10	1.0m			10k	4.0pt	2.3m	100	*	TO72	DM
44	MEM520C	175m	6.0Δ	*	25	25	50m			3.0p	10	10	1.0m			10k	4.0pt	2.3m	100	*	TO72	DM
45	UC140	180m†	4.0	20		30Δ			6.0mΔ	10p	0.0	20	2.2m			500	8.0p		200J	PE	TO72	DG
46	UC410	180m†	4.0	20		30Δ			6.0mΔ	10p	0.0	20	2.2m			500	8.0p		200J	PE	TO72	DG
47	2N4342	200m	5.5†	10Δ	25Δ	25Δ		50m	12mΔ	10n	0.0	10	2.0m	6.0m	75u	700 †	20p#	2.0m	125J	Ø	R124a	DB
48	2N4343	200m	10†	10Δ	25Δ	25Δ		50m	30mΔ	10n	0.0	10	4.0m	8.0m	100u	350 †	20p#	2.0m	125J	Ø	R124a	DB
49	2N4360	200m	10†	10Δ	20Δ	20Δ		50m	30mΔ	10n	0.0	10	2.0m	8.0m	100u	700 †	20p#	2.0m	125J	Ø	R124a	DB
50	2N5033	200m	2.5†	10Δ	20	20		50m	3.5mΔ	10n	0.0	10	1.0m	5.0m	20u%	1.3k†	25p#	2.0m	125J		R124 a	DB
51	2N5265	200m	3.0†	15	60	60	20m	10m	1.0m	2.0n	0.0	15	.90m	2.7m	75u		7.0p#	1.3m	200S	#Ø	TO72	DH
52	2N5266	200m	3.0†	15	60	60	20m	10m	1.6m	2.0n	0.0	15	1.0m	3.0m	75u		7.0p#	1.3m	200S	#Ø	TO72	DH
53	2N5267	200m	6.0†	15	60	60	20m	10m	3.0m	2.0n	0.0	15	1.5m	3.5m	75u		7.0p#	1.3m	200S	#Ø	TO72	DH
54	2N5268	200m	6.0†	15	60	60	20m	10m	5.0m	2.0n	0.0	15	2.0m	4.0m	75u		7.0p#	1.3m	200S	#Ø	TO72	DH
55	2N5269	200m	8.0†	15	60	60	20m	10m	8.0m	2.0n	0.0	15	2.2m	4.5m	75u		7.0p#	1.3m	200S	#Ø	TO72	DH
56	2N5270	200m	8.0†	15	60	60	20m	10m	14m	2.0n	0.0	15	2.5m	5.0m	75u		7.0p#	1.3m	200S	#Ø	TO72	DH
57#	2SJ15	200m	6.0	10				10m	1.5m	50n	0.0	12	.20m	3.0m			6.0p*	.75m	175J		TO18	DBØ
58#	2SJ16	200m	6.0	10				10m	1.5m	10n	0.0	12	.20m	3.0m			6.0p*	.75m	175J		TO18	DBØ
59	FT3820	200m	8.0†	10	20	20		10m	15m	20n	0.0	10	.80m	5.0m	200u		32p#	2.0m	125J	DPL	R124 a	DB
60	MEM560C	200m	3.5Δ	*	30	30	50m		10n	1.0n	5.0Ø	10	2.0m	3.0mΔ		175	11p#	2.7m	100J	*	TO72	DM
61	MFE4007	200m	3.0†	15Δ	40	40	20m	10m	1.0m	2.0n	0.0	15	900u%	2.7m%	75u%		7.0p#	1.3m	175J	#	TO72	DR
62	MFE4008	200m	3.0†	15Δ	40	40	20m	10m	1.6m	2.0n	0.0	15	1.0m%	3.0m%	75u%		7.0p#	1.3m	175J	#	TO72	DR
63	MFE4009	200m	6.0†	15Δ	40	40	20m	10m	3.0m	2.0n	0.0	15	1.5m%	3.5m%	75u%		7.0p#	1.3m	175J	#	TO72	DR
64	MFE4010	200m	6.0†	15Δ	40	40	20m	10m	5.0m	2.0n	0.0	15	2.0m%	4.0m%	75u%		7.0p#	1.3m	175J	#	TO72	DR
65	MFE4011	200m	8.0†	15Δ	40	40	20m	10m	8.0m	2.0n	0.0	15	2.2m%	4.5m%	75u%		7.0p#	1.3m	175J	#	TO72	DR
66	MFE4012	200m	8.0†	15Δ	40	40	20m	10m	14m	2.0n	0.0	15	2.5m%	5.0m%	75u%		7.0p#	1.3m	175J	#	TO72	DR
67#	MT101B	200m	6.5Δ	6.5*	25	25			20nΔ		1.0Ø	6.5	650u	850uΔ		470 Δ	6.9pt	2.0m	125C	*	R115	DR
68#	MT102B▼	200m	6.5Δ	6.5*	25	25			20nΔ		1.0Ø	6.5	650u	850uΔ		470 Δ	6.9pt	4.0m	125C	*	L54a	
69▼#	SFF103	200m	5.0Δ	*	25	25	50				5.0Ø	15	1.0			150	3.0 Δ*	2.0m		*	TO72	DJ
70▼#	SFF121	200m	5.0Δ	*	20	25	20				5.0Ø	15	800m			600	500mΔ	2.0m		*☑	TO72	DJ
71	3N167	225m	6.0Δ	10	30			100u	200m	100p						25	35p	2.3m	125	*	TO72	
72	3N168	225m	6.0Δ	10	25			100u	100m	500p						50	35p	2.3m	125	*	TO72	
73	M103	225m	5.5Δ	*	30	30	50m	100u		100p						130 %	500f☑	2.3m	125J	*Δ	TO72	DM
74	M104	225m	6.0Δ	*	30	30	50m	100u		100p						1.2k	500ft	2.3m	125J	*	TO72	DM
75▼	M113	225m	3.0Δ	*	30	30	50m			100p						200 %	4.0pt	2.2m	125J	*Δ	TO72	DS
76	M511	225m	6.0Δ	*	30		50m	100u	10n	1.0n	10	10	1.0m			150	3.0pt	800u	125J	Δ*	TO72	
77	MEM511	225m	6.0Δ	*	30	30	50m	100u	6.0u	1.0n	10	10	1.0m			10k	2.5pt	440u	125J	*	TO72	DM
78	MEM520	225m	6.0Δ	10*	30	40	50m		3.0u#	3.0p	10	10	1.0m			250	2.5pΔ	2.3m	125J	*†	TO72	DM
79	2N4353†	250m	5.0Δ	10*	30	30	100m	10u	5.0n		0.0	10	1.0m	4.0m	350u	300 †	12p#	2.0m	125S		TO72	DM
80	2N5505▼	250m	4.0†	10		30		200u	7.0m	.25n	0.0	10	1.0m	3.5m	60u%		16p#	2.0m	150S	#Ø	L21	
81	2N5506▼	250m	4.0†	10		30		200u	7.0m	.25n	0.0	10	1.0m	3.5m	60u%		16p#	2.0m	150S	#Ø	L21	
82	2N5507▼	250m	4.0†	10		30		200u	7.0m	.25n	0.0	10	1.0m	3.5m	60u%		16p#	2.0m	150S	#Ø	L21	
83	2N5508▼	250m	4.0†	10		30		200u	7.0m	.25n	0.0	10	1.0m	3.5m	60u%		16p#	2.0m	150S	#Ø	L21	
84	2N5509▼	250m	5.0†	10		30		200u	7.0m	.25n	0.0	10	1.0m	3.5m	60u%		16p#	2.0m	150S	#Ø	L21	
85	2N5510Ø	250m	4.0†	10		30		200u	5.0m	.25n	0.0	10	.50m	3.0m	60u%		16p#	24m	150S	#Ø	L21	
86	2N5511Ø	250m	4.0†	10		30		200u	5.0m	.25n	0.0	10	.50m	3.0m	60u%		16p#	24m	150S	#Ø	L21	
87	2N5512Ø	250m	4.0†	10		30		200u	5.0m	.25n	0.0	10	.50m	3.0m	60u%		16p#	24m	150S	#Ø	L21	
88	2N5513Ø	250m	4.0†	10		30		200u	5.0m	.25n	0.0	10	.50m	3.0m	60u%		16p#	24m	150S	#Ø	L21	
89	2N5514Ø	250m	5.0†	10		30		200u	5.0m	.25n	0.0	10	.50m	3.0m	60u%		16p#	24m	150S	#Ø	L21	
90	2N2606	300m	4.0	5.0		30			.50m	1.0n	0.0	5.0	.11m				6.0p#	2.0m	200S		TO18	DAØ
91	JAN2N2606	300m	4.0Δ	5.0					500u	1.0n	0.0	5.0	110u	330u			6.0p	2.0m	200S	DØ	TO18	DAØ
92	2N2607	300m	4.0	5.0		30			1.5m	3.0n	0.0	5.0	.33m				10p#	2.0m	200S		TO18	DAØ
93	JAN2N2607	300m	4.0Δ	5.0					1.5m	3.0n	0.0	5.0	330u	1.0m			10p	2.0m	200S	DØ	TO18	DAØ
94	2N2608	300m	4.0	5.0		30			4.5m	10n	0.0	5.0	1.0m				17p#	2.0m	200S		TO18	DAØ
95	JAN2N2608	300m	4.0Δ	5.0					4.5m	10n	0.0	5.0	1.0m	2.5m			17p	2.0m	200S	DØ	TO18	DAØ
96	2N2609	300m	4.0	5.0		30			10m	30n	0.0	5.0	2.5m				30p#	2.0m	200S		TO18	DAØ
97	JAN2N2609	300m	4.0	5.0					10m	30n	0.0	5.0	2.5m	6.2m			30p	2.0m	200S	DØ	TO18	DAØ
98	2N2841	300m	1.7	5.0		30			.13m	1.0n	0.0	5.0	.06m				6p#%	2.0m	200S		TO18	DAØ
99	2N2842	300m	1.7	5.0		30			.33m	3.0n	0.0	5.0	.18m				10p#%	2.0m	200S		TO18	DAØ
100	2N2843	300m	1.7	5.0		30			1.0m	10n	0.0	5.0	.54m				17p#%	2.0m	200S		TO18	DAØ
101	2N2844	300m	1.7	5.0		30			2.2m	30n	0.0	5.0	1.4m				30p#%	2.0m	200S		TO18	DAØ
102	2N3112	300m	4.0	5.0		20	10m	10m	18mΔ	.05n	0.0	5.0	.05m	.12m			3.5p#	2.0m	200S		TO18	DG§
103	2N3329	300m	5.0†	15		20		10m	3.0m	10n	1Ø	10	1.0m	2.0m	20u%	1.0k	20p#%	2.0m	200S		TO72	DG
104	JAN2N3329	300m	5.0†	15		20		10m	3.0m	10n		10	1.0m	2.0m	20u	1.0k	20p#	2.0m	200S	#Ø	TO72	DG
105	2N3330	300m	6.0†	15		20		10m	6.0m	10n	2Ø	10	1.5m	3.0m	40u%	.80k	20p#%	2.0m	200S		TO72	DG
106	JAN2N3330	300m	6.0†	15		20		10m	6.0m	10n		10	1.5m	3.0m	40u	800	20p#	2.0m	200S	#Ø	TO72	DG
107	2N3331	300m	8.0†	15		20		10m	15m	10n	5Ø	10	2.0m	4.0m	100u%	.60k	20p#%	2.0m	200S		TO72	DG
108	JAN2N3331	300m	8.0†	15		20		10m	15m	10n		10	2.0m	4.0m	100u	600	20p#	2.0m	200S	#Ø	TO72	DG
109	2N3332	300m	6.0†	15		20		10m	6.0m	10n	1Ø	10	1.0m	2.2m	20u%		20p#%	2.0m	200S		TO72	DG
110	JAN2N3332	300m	6.0†	15		20		10m	6.0m	10n		10	1.0m	2.2m	20u	800	20p#	2.0m	200S	#Ø	TO72	DG

6. SILICON FIELD EFFECT TRANSISTORS - P CHANNEL

IN ORDER OF (1) DISSIPATION
(2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. DEVICE DISS @25°C (W)	MAX. Vp @ Id=0 (V)	MAX. Vp & Vds (V)	ABS MAX RATINGS@25°C BVdss (V)	BVgss (V)	Id (A)	Ig (A)	MAX. Id(ON)@ Vgs=0& Vds>Vp (A)	MAX. Igss@ Vgs>Vp &Vds=0 (A)	PARAMETERS @25°C TEST COND Vgs	Vds	COMMON SOURCE gfs (mhos) MIN	gfs (mhos) MAX	Yos mhos	Rds (Ω)	MAX. Cis (F)	DERATE IN FREE AIR W/°C	MAX TEMP (°C)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CONFIG
1	2N3376	300m	5.0	5.0		30	100m	50m	6m%Δ	3.0n	0.0	10	.80m	2.3mt		1.5kt	3.0pΔ	2.0m	200S		TO72	DG
2	2N3378	300m	5.0	5.0		30	100m	50m	6m%Δ	3.0n	0.0	10	1.5m	2.3mt		.75kt	3.0pΔ	2.0m	200S		TO72	DG
3	2N3380	300m	9.5	5.0		30	100m	50m	20m%Δ	3.0n	0.0	10	1.5m	3mt		.60kt	3.0pΔ	2.0m	200S		TO72	DG
4	2N3382	300m	5.0	5.0		30	100m	50m	30m%	15n	0.0	10	4.5m	13mt		.30kt	6.0pΔ	2.0m	200S		TO72	DG
5	2N3384	300m	5.0	5.0		30	100m	50m	30m%	15n	0.0	10	7.5m	13mt		.18kt	6.0pΔ	2.0m	200S		TO72	DG
6	2N3386	300m	9.5	5.0		30	100m	50m	50m%Δ	15n	0.0	10	7.5m	15mt		.15kt	6.0pΔ	2.0m	200S		TO72	DG
7	2N3578	300m	4.0t	5.0		20	50m	50m	4.5m		0.0	5.0	1.2m	3.5m	15u%		65p%	2.0m	200S		TO18	DAØ
8	2N3909	300m	8.0t	10	20	20		10m	15m	10n	0.0	10	1.0m	5.0m	100u%		32p#%	2.0m	200S	PL	TO72	DH
9	2N3909A	300m	8.0	10	20	20			15m	10n	0.0	10	2.2m	5.0m	100u		9p#	2.0m	200S	#	TO72	DG
10	2N3993	300m		Δ	25	25		10m	10m		0.0	10	6.0m	12m			16p#	2.0m	200S		TO72	DG
11	2N3993A	300m			25	9.5			10mΔ%	1.2n	0.0	10	7.0m	12m		.15k%	12p#	2.0m	200S	Ø#	TO72	DG
12	2N3994	300m		Δ	25	25		10m	2.0m		0.0	10	4.0m	12m			16p#	2.0m	200S		TO72	DG
13	2N3994A	300m			25	5.5			2.0mΔ%	1.2n	0.0	10	5.0m	10m		.30k%	12p#	2.0m	200S	Ø#	TO72	DG
14	2N4088	300m	8.0t	10Δ	30	20		10m	15m	.10n		10	1.0m	1.6m	60u		10p#	1.7m	200C	Ø	TO72	DH
15	2N4089	300m	5.0t	10Δ	30	20		10m	8.0m	.10n		10	.80m	1.3m	40u		10p#	1.7m	200C	Ø	TO72	DH
16	2N4090	300m	3.0t	10Δ	30	20		10m	2.5m	.10n		10	.50m	.90m	20u		10p#	1.7m	200C	Ø	TO72	DH
17	2N4352	300m	5.0Δ	10*	25Δ	15	30m		3.0m	.01n						.60kt	5.0p#	1.7m	200S		TO72	DR
18	2N4381	300m	5.0t	15Δ	25	25			12m	1.0n	0.0	15	2.0m	6.0m	75u%	.70k%	20p#	2.0m	175J		TO18	DG
19	2N4382	300m	9.0t	15Δ	25	25			30m	1.0n	0.0	15	4.0m	8.0m	100u%	.35k%	20p#	2.0m	175J		TO18	DG
20	2N5020	300m	1.5t	15Δ	25	25		50m	1.2m	1.0n	0.0	15	1.0m	3.5m	20u	1.0kt	25p#	2.0m	175J	Ø	TO18	DAØ
21	2N5021	300m	2.5t	15Δ	25	25		50m	3.5m	1.0n	0.0	15	1.5m	5.0m	20u	1.3kt	25p#	2.0m	175J	Ø	TO18	DAØ
22	2N5471	300m	4.0t	15		40			.06mΔ%	.50n	0.0	15	.06m	.18mt	1.0u*		5p#	2.0m	200S	Ø#	TO72	DG
23	2N5472	300m	4.0t	15		40			120uΔ%	500p	0.0	15	90u	225ut	1.0u*		5.0p#	2.0m	200S	#Ø	TO72	DG
24	2N5473	300m	6.0t	15		40			.25mΔ%	.50n	0.0	15	.12m	.30mt	2.5u*		5p#	2.0m	200S	Ø#	TO72	DG
25	2N5474	300m	7.0t	15		40			.5mΔ%	.50n	0.0	15	.16m	.40mt	2.5u*		5p#	2.0m	200S	Ø#	TO72	DG
26	2N5475	300m	8.0t	15		40			1mΔ%	.50n	0.0	15	.20m	.50mt	5.0u*		5p#	2.0m	200S	Ø#	TO72	DG
27	2N5476	300m	9.0t	15		40			2mΔ%	.50n	0.0	15	.26m	.65mt	10u*		5p#	2.0m	200S	Ø#	TO72	DG
28	3N89Ø	300m	4.0	5.0		30	50m		2.5m	5.0n	0.0	5.0	.45m	1.3m			.90pØ	2.0m	200S		TO72	DUØ
29	3N155t	300m	3.2Δ	10*	35	50			5.0m	1.0n						.60kt	5.0p%	1.7m	175J	*Ø	TO72	DR
30	3N155At	300m	3.2t	10*	35	50	30m			1.0n						.30k%	5.0p#	1.7m	175J	*Ø	TO72	DG
31	3N156t	300m	5.0Δ	10*	35	50			5.0m	1.0n						.60kt	5.0p%	1.7m	175J	*Ø	TO72	DR
32	3N156At	300m	5.0t	10*	35	50	30m			1.0n						.30k%	5.0p#	1.7m	175J	*Ø	TO72	DG
33	3N157	300m	3.2Δ	15*	35	25	30m			.01n		15	1.0	4.0	60u		5.0p%	1.7m	175J	*	TO72	DR
34	3N157A	300m	3.2t	15*	50	25	30m			.01n	2Ø	15	1.0	4.0	60u		5.0p#	1.7m	175J	*Ø	TO72	DG
35	3N158	300m	5.0Δ	15*	35	25	30m		5.0m	.01n		15	1.0	4.0	60u		5.0p%	1.7m	175J	*	TO72	DR
36	3N158A	300m	5.0t	15*	50	25	30m			.01n	2Ø	15	1.0	4.0	60u		5.0p#	1.7m	175J	*Ø	TO72	DG
37	3N165▼	300m	5.0Δ	15*	40	40	50m		30m	10p	10Ø	15	1.5m	3.0m	300u	300	3.0p#	2.4m	200S	Δ*	L18c	
38	3N166t	300m	5.0Δ	15*	40	40	50m		30m	10p	10Ø	15	1.5m	3.0u	300u	300	3.0p#	2.4m	200S	*	L18c	
39▼	3N184t	300m	3.0Δ	10*	35	35Δ	50m	1.0m	20m#Ø							150	9.0p#	2.4m	200S	Ø*	TO72	DM
40▼	3N185t	300m	3.0Δ	10*	30	30Δ	50m	1.0m	15m#Ø							175	10p#	2.4m	200S	Ø*	TO72	DM
41▼	3N186t	300m	3.5Δ	10*	25	25Δ	50m	1.0m	10m#Ø							200	11p#	2.4m	200S	Ø*	TO72	DM
42	FP4339	300m	1.8	15		40		50m	1.5m	3.0n	0.0	15	.80m	2.4m		1.7k	7.0p#	2.0m	175	#	TO72	DG
43	FP4340	300m	3.0	15		40		50m	3.6m	3.0n	0.0	15	1.3m	3.0m		1.5k	7.0p#	2.0m	175	#	TO72	DG
44	FT3909	300m	8.0t	10	20	20		10m	15m	10n	0.0	10	1.0m	5.0m	100u		32p#	2.0m	125J	DPL	TO18	DAØ
45▼	MEM100t	300m	3.0Δ	10*	35	35	50m	100u	2.0n							150	9.0p#	2.0m	200S	*Δ	TO72	DM
46▼	MEM101t	300m	3.0Δ	10*	30	30	50m	100u	5.0n							175	10p#	2.0m	200S	*Δ	TO72	DM
47▼	MEM102t	300m	3.5Δ	10*	25	25	50m	100u	10n							200	11p#	2.0m	200S	*Δ	TO72	DM
48	MEM560	300m	3.0Δ	10*	35	35	50m		15m#Ø	500p		10	2.0				9.0p		125A	*	TO72	DM
49	P102♦	300m	4.0	5.0		30	50m	50m	4.5m	10n	0.0	5.0	1.0m	1.6 Δ			17p#	2.0m	200S	DØ	X8	Ø
50	P1027	300m	3.0	10		30			6.0m	3.0n	0.0	10t	.75m	3.5m			20p%	1.7m	200J	PL	TO72	DH
51	P1028	300m	5.0	10		30Δ			20m	3.0n	0.0	10	2.5m	8.0m			30p	1.7m	200J	PL	TO72	DH
52	P1029	300m	8.0	10		30Δ			50m	3.0n	0.0	10	5.0m				50p%	1.7m	200J	PL	TO72	DH
53	P1069E	300m	4.0t	10Δ		20		10m	5.0m	3.0n	0.0	10	3.0m	8.0m	100u	600k%	40p	2.5m	125S	Ø	R97b	DA
54	P1086E	300m	10	15		30		10m	10m	2.0n						75	45p#	2.5m	125J		R97	DB
55	P1087E	300m	5.0	15		30		10m	5.0m	2.0n						.15k	45p#	2.5m	125J		R97b	DB
56	U110	300m	6.0	10		20			1.0m	4.0n	0.0	10	.11m				6.0pt	2.0m	175A	D	TO18	DAØ
57	U112	300m	6.0	10		20			9.0m	4.0n	0.0	10	1.0m				17pt	2.0m	175A	D	TO18	DAØ
58	U114	300m	6.0	5.0		30		50m	.50m	1.0n	0.0	5.0	.11m	.18mΔ	2.5u		6.0p%	2.0m	175A	D	TO46	DAØ
59	U133	300m	4.0	5.0	50	50		50m	1.5m	3.0n	0.0	5.0	.33m	.53mΔ			10p%	2.0m	175A	D	TO18	DAØ
60	U139	300m	7.0	5.0		30		50m	35m	10n	0.0	10	7.0m			.12k	16pt	2.0m	200S	D#Δ	L61c	
61	U139D	300m	10	5.0		20		50m	50m	10n	0.0	10	5.0m			.11k	16pt	2.0m	200S	D#Δ	L61c	
62	U146	300m	6.0	10		20		30m	25u#Δ	10n	0.0	10	.06m					2.0m	175A	D	TO18	DAØ
63	U147	300m	6.0	10		20		30m	65u#Δ	20n	0.0	10	.18m					2.0m	175A	D	TO18	DAØ
64	U148	300m	6.0	10		20		30m	.20m#Δ	60n	0.0	10	.54m					2.0m	175A	D	TO18	DAØ
65	U149	300m	6.0	10		20		30m	.44m#Δ	200n	0.0	10	1.4m					2.0m	175A	D	TO18	DAØ
66	U168	300m	5.0	10		20		50m	6.0mΔ	30n	0.0	5.0	.80m				65p#	2.0m	150S	#	TO18	DA
67	UC401	300m	8.0	20		30			8.0m	100p						250 †	8.0p#			PE	TO72	
68	UC805	300m	8.0	20		25			25m#	1.0n	0.0	20	1.0m	10m		1.0kt	12p#			PEØ	TO72	
69	UC814	300m	8.0	20		25			15m	2.0n	0.0	20	.80m	5.0m		1.3kt	16p#			PLØ		
70	UC851	300m	6.0	15		20			9.0m	4.0n	0.0	15	1.0m				17p#			PL	TO18	
71▼	UC2766*	300m	5.0Δ	15*	30	30Δ	50m		30mØ	10p		15	1.0m	4.0m	300u%	300 %	3.5p#	2.4m	150J	PLØ		
72▼#	ZTX350	300m	6.0Δ	6.0*	20	23			3.0nΔ	3.0n	10	10	250u	1.0m		2.5kt	1.5p#	6.6m	70A	PL*	X59	DA
73	2N5460	310m	6.0t	15		40			5.0mΔ	5.0n	0.0	15	1.0m	4.0m	75u		7p#	2.8m	150S	Ø#	TO92	DB
74	2N5461	310m	7.5t	15		40			9.0mΔ	5.0n	0.0	15	1.5m	5.0m	75u		7p#	2.8m	150S	Ø#	TO92	DB
75	2N5462	310m	9.0t	15		40			16mΔ	5.0n	0.0	15	2.0m	6.0m	75u		7p#	2.8m	150S	Ø#	TO92	DB
76	2N5463	310m	6.0t	15		60			5.0mΔ	5.0n	0.0	15	1.0m	4.0m	75u		7p#	2.8m	150S	Ø#	TO92	DB
77	2N5464	310m	7.5t	15		60			9.0mΔ	5.0n	0.0	15	1.5m	5.0m	75u		7p#	2.8m	150S	Ø#	TO92	DB
78	2N5465	310m	9.0t	15		60			16mΔ	5.0n	0.0	15	2.0m	6.0m	75u		7p#	2.8m	150S	Ø#	TO92	DB
79	MPF161	310m	8.0t	15Δ	40	40	20m	10m	14m	10n	0.0	15	800u%	6.0m%	75u%		7.0p#	2.8m	135J	#†	TO92	DB
80	2N3608	350m	6.0Δ	*	25	25			7.0m	25p						400 %	15m	125S		Ø	TO33	DK
81	2N3609Ø	350m	6.0Δ	*	25	25			3.2m	20p						1.0k%	15m	125S			L18	
82	2N4065t	350m	6.0Δ	15*	30	25	20m		12mØ		15	15	.40m		100u	1.5k	4.5p#	2.3m	175J	Δ	TO72	DM
83	3N145t	350m	6.0Δ	20*			20m	10m	3.0m#							1.5kt	1.0pØ	2.3m	175J	*Ø	TO72	DM
84	3N146t	350m	6.0Δ	20*			20m	10m	3.0m#							1.5kt	1.0pØ	2.3m	175J	*Ø	TO72	DM
85	41004	350m	4.0Δ	6.0	30	30	35m			1.0p	1.0Ø	1.0	800u			40k	8.0p	3.5m	150		R96a	DC
86#	BSW95t	350m	6.0Δ	20*	30	50	20m	50m	3.0mØ	1.0n	15	15	600uΔ			1.5k	4.0pt%	2.3m	175J	DPL*	TO72	DM
87#	BSW95At	350m	6.0Δ	20*	30	50	20m	50m	3.0mØ	1.0n	15	15	600uΔ			1.5k	4.0pt%	2.3m	175J	DPL*	TO72	DM
88#	BSX84t	350m	6.0Δ	15	30	25	20m		12mØ		15	15	.70m	.80mΔ	25u	.80k	4.5p#	.43m	175J	DPL*Ø	TO72	DM
89#	FI100	350m	6.0Δ	*	30	40	35m		12mØ		10	10	300u	600uΔ		150k	3.0pØ	2.3m	175J	DPL*Ø	TO72	DM
90	FT704	350m	6.0	15	30	25	20m	10m			15	15	25mΔ	100m%	100u%	1.5kt	4.5p#	2.3m	175J	DPL*	L51a	
91	SC1600*	350m	7.0Δ	5.0*	30	30			5.0n		7Ø	7.0	.40m			25k		3.5m	150J	*Ø	L18b	
92	SC1601*	350m	7.0Δ	5.0*	30	30			100n		7Ø	7.0	.40m			25k		3.5m	150J	*Ø	L18b	
93	SC1611	350m	7.0Δ	5.0*	20	20			35n		7Ø	7.0	.80m			40k		3.5m	125A	*Δ	R96b	DM
94	SC1612	350m	7.0Δ	5.0*	20	20			35n		7Ø	7.0	.80m			40k		3.5m	125A	*Δ	R96c	DM
95	SC1613	350m	7.0Δ	5.0*	20	20			100n		7Ø	7.0	.80m			40k		3.5m	125A	*Δ	R96b	DM
96	SC1614	350m	7.0Δ	5.0*	20	20			100n		7Ø	7.0	.80m			40k		3.5m	125A	*Δ	R96c	DM
97	SC1625*	350m	6.0Δ	5.0*	30	30					7Ø	7.0	.40m			25k		3.5m	150J	*Ø	L18b	
98	UC400	350m	6.0	20		30Δ			15mΔ	.01n	0.0	20	3.0m			.30kt	8.0p		200J	PE	TO72	DG
99	2N3820	360m	8.0t	10Δ	20	20		10m	15m%	20n	0.0	10	.80m	5.0m	200u		32p#	2.9m	150S	†	TO92	DA
100	2N5548	360m	5.0t	15*	25	25	125m		120mØ	50p			3.5m	6.5m	250u%		10p	2.9m	150S		X55	DQ
101	3N160	360m	5.0t	15*	25	25	125m		120mØ	10p			3.5m	6.5m	250u%		10p	2.4m	200S		TO72	DM
102♦	3N161	360m	5.0Δ	15*	25	25	125m		120m%		8.0Ø	15	3.5m	6.5m	250u		10p#	2.4m	200S		TO72	DMØ
103▼	3N174t	360m	6.0Δ	15*	30	25Δ	20m		12m	2.5p	15	15	400u		200u	1.0k	4.0p#	2.4m	200S		TO72	DMØ
104	TIXS67	360m	5.0Δ	15*	25	25	125m		40m#Ø	.05n	8Ø	15	3.5m	6.5m	250u%		10p#	.35m	150J	P*†	X55	DQ
105	3N163t	375m	5.0Δ	15*	40	40	50m		30m	10p	10Ø	15	2.0m	4.0m	250u	250	2.5p#	3.0m	200S	*	TO72	DM
106	3N164t	375m	5.0Δ	15*	30	30	50m		30m	10p	10Ø	15	1.0m	4.0m	250u	300	2.5p#	3.0m	200S	*	TO72	DM
107▼	3N172t	375m	5.0Δ	15*	40	40Δ	50m	1.0m	30m			15	1.5m	4.0m	250u	250	3.5p#	3.0m	200S		TO72	DMØ
108▼	3N173t	375m	5.0Δ	15*	40	40Δ	50m	1.0m	30m			15	1.0m	4.0m	250u	350	3.5p#	3.0m	200S		TO72	DMØ
109	UC1764	375m	5.0Δ	*	30	30	50		3.0mØ#		10Ø	15	1.0m	4.0m	300u	300kΔ	3.0p#	3.0m	200S	*	TO72	DS
110	2N4267t	400m	6.0Δ	15*	30	25	500m		100mØ		15	15	3.0m		600u	.25k	15p#	2.7m	175J		TO72	DM

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

6. SILICON FIELD EFFECT TRANSISTORS - P CHANNEL

IN ORDER OF (1) DISSIPATION
(2) TYPE No.

LINE No.	TYPE No.	1 MAX. DEVICE DISS @25°C (W)	MAX. Vp @ Id=0 (V)	MAX. Vp & Vds (V)	ABS MAX RATINGS@25°C BVdss (V)	BVgss (V)	Id (A)	Ig (A)	MAX. Id(ON)@ Vgs=0& Vds>Vp (A)	MAX. Igss@ Vgs>Vp &Vds=0 (A)	PARAMETERS @25°C TEST COND Vgs (V)	Vds (V)	COMMON SOURCE gfs (mhos) MIN	gfs (mhos) MAX	Yos mhos	Rds (Ω)	MAX. Cis (F)	DERATE IN FREE AIR W/°C	MAX TEMP (°C)	DESCRIPTION STRUCTURE	DWG. No.	L C E O A D D E
1	2N4268†	400m	6.0Δ	15*	30	25	500m		100mØ		15	15	5.0m		600u	.12k	15p#	2.7m	175J		TO72	DM
2	3N149†	400m	6.0Δ	20*			200m	10m	16m#							.25k†	3.0pØ	2.6m	175J	*☑	TO72	DM
3	3N150†	400m	6.0Δ	20*			200m	10m	16m#							.25k†	3.0pØ	2.6m	175J	*☑	TO72	DM
4#	BSW30†	400m	6.0Δ	15*	30	25	500m		1nØ		15	15	3.0m	4.6mΔ	240u	.25k†	14p#	2.7m	175J	DPL*	TO72	DM
5#	BSW31†	400m	6.0Δ	15*	30	25	500m		1nØ		15	15	5.0m	6.2mΔ	240u	.12k†	14p#	2.7m	175J	DPL*	TO72	DM
6	MEM517C	450m	5.0Δ	*	25	25	250m	100u		1.0n	10	10	12mΔ			1.0k	10p*†	6.0m	100	*	TO33	DM
7	2N2386	500m	8.0	12		20Δ		10m		10n	0.0	10	1.0m		.30uΔ		50p#%	3.3m	200S		TO5	DAØ
8	2N2386A	500m				20			15mΔ	10n	0.0	10	2.2m	5.0m	.10uΔ		10p#	3.3m	200S	#	TO5	DAØ
9	2N2497	500m	5.0	15		20Δ		10m	3.0m	10n	1Ø	10	1.0m	2.0m	20u%	1.0k	32p#	3.3m	300S		R82	DAØ
10	JAN2N2497	500m	5.0†	15	20			10m	3.0m	10n		10	1.0m	2.0m	20u	1.0k	32p#	3.3m	200S	Ø#	TO5	DAØ
11	2N2498	500m	6.0	15		20Δ		10m	6.0m	10n	2Ø	10	1.5m	3.0m	40u%	.80k	32p#	3.3m	300S		R82	DAØ
12	JAN2N2498	500m	6.0†	15	20			10m	6.0m	10n		10	1.5m	3.0m	40u	800	32p#	3.3m	200S	Ø#	TO5	DAØ
13	2N2499	500m	8.0	15		20Δ		10m	15m	10n	5Ø	10	2.0m	4.0m	100u%	.60k	32p#	3.3m	300S		R82	DAØ
14	JAN2N2499	500m	8.0†	15	20			10m	15m	10n		10	2.0m	4.0m	100u	600	32p#	3.3m	200S	Ø#	TO5	DAØ
15	2N2500	500m	6.0	15		20Δ		10m	6.0m	10n	1Ø	10	1.0m	2.2m	20u%		32p#	3.3m	300S		R82	DAØ
16	JAN2N2500	500m	6.0†	15	20			10m	6.0m	10n		10	1.0m	2.2m	20u	800	32p#	3.3m	200S	Ø#	TO5	DAØ
17	2N5114†	500m	10†	15		30			90m	.50n						.08k%	25p#	3.0m	200S	☑#	TO18	DAØ
18	2N5115†	500m	6.0†	15		30			60m	.50n						.10k%	25p#	3.0m	200S	☑#	TO18	DAØ
19	2N5116†	500m	4.0†	15		30			25m	.50n						.15k%	25p#	3.0m	200S	#	TO18	DAØ
20♦	M106*	500m	6.0Δ	*	30	30	50m	10m	200p	100p						120	4.0p†	6.7m	125J	#*	L51b	
21▼	M107*	500m	6.0		30	30	50m			100p						120		6.7m	125	*		
22▼	M108*	500m	6.0		30	30	50m			1.0p						120		6.7m	125	*		
23	2N4066†	600m	6.0Δ	15*	30	25	200m		50m		15	15	1.5m		300u%	.50k	7.0p#	4.0m	175J	☑	L18a	
24	2N4067†	600m	6.0Δ	15*	30	25	200m		50m		15	15	2.5m		300u%	.25k%	7.0p#	4.0m	175J	☑	L18a	
25	3N147†	600m	6.0Δ	20*			200m	10m	8.0m#							.50k†	2.0pØ	4.0m	175J	*☑	L18a	
26	3N148†	600m	6.0Δ	20*			200m	10m	8.0m#							.50k†	2.0pØ	4.0m	175J	*☑	L18a	
27▼	3N181†	600m	4.0Δ	10*	30	30Δ	100m	1.0m	40m#Ø							40	25p#	4.8m	200S	☑*	TO33	DM
28▼	3N182†	600m	5.0Δ	10*	30	30Δ	100m	1.0m	40m#Ø							60	25p#	4.8m	200S	☑*	TO33	DM
29▼	3N183†	600m	6.0Δ	10*	25	25Δ	100m	1.0m	25m#Ø							75	30p#	4.8m	200S	☑*	TO33	DM
30#	BSX85*	600m	6.0Δ	15	30	25	200m		50mØ		15	15	1.5m	2.3mΔ	120u	.30k	7.0p#		175J	DPL*	TO76	
31#	FI0049*	600m	6.0Δ		30	25	200m		50mØ		15	20	2.0m			125k	5p*#	4.0m	175J	DPL*☑	L18a	
32▼	MEM400†	600m	4.0Δ	10*	30	30	100m	100u	500p							40	25p#	4.0m	200S	*Δ	TO33	DM
33▼	MEM401†	600m	5.0Δ	10*	30	30	100m	100u	2.5n							60	25p#	4.0m	200S	*Δ	TO33	DM
34▼	MEM402†	600m	6.0Δ	10*	25	25	100m	100u	10n							75	30p#	4.0m	200S	*Δ	TO33	DM
35	MEM517	600m	5.0Δ	*	30	25	250m	1.0m	60m*	1.0n	10	10	12mΔ			1.0k	10pt*	170u	125J	*	TO33	DM
36	MEM517A	600m	5.0Δ	*	30	25	250m	1.0m	60m*	1.0n	10	10	12mΔ			1.0k	10pt*	170u	125J	*	TO5	DCØ
37	UC807	600m	12	15		20			125m#	2.0n	0.0	15	2.5m	25m		400 †	30p*			PE	TO72	
38	2N5018†	1.8 Δ	10†	15Δ	30	30		10m	10m#	2.0n						.07k†	45p#	10m	200S		TO18	DAØ
39	2N5019†	1.8 Δ	5.0†	15Δ	30	30		10m	5.0m#	2.0n						.15k†	45p#	10m	200S		TO18	DAØ
40	3N162†	2.0 Δ	5.0Δ	10*	30	25Δ	250m		25m							100	20p#	20m	150S	*	TO33	DM
41▼	MEM515	2.0	3.0Δ	10*	30	35	700m	1.0m	10n	500p		10	12m			15	50p#		175S	*Δ	TO33	DM

7. SILICON FIELD EFFECT TRANSISTORS - N CHANNEL

IN ORDER OF (1) DISSIPATION
(2) TYPE No.

LINE No.	TYPE No.	MAX. DEVICE DISS @25°C (W)	MAX. Vp @ Id=0 (V)	MAX. Vp & Vds (V)	ABS MAX RATINGS@25°C BVdss (V)	BVgss (V)	Id (A)	Ig (A)	MAX. Id(ON)@ Vgs=0& Vds>Vp (A)	MAX. Igss@ Vgs>Vp &Vds=0 (A)	TEST COND Vgs (V)	TEST COND Vds (V)	PARAMETERS @25°C COMMON SOURCE gfs (mhos) MIN	gfs (mhos) MAX	Yos mhos	Rds (Ω)	MAX. Cis (F)	DERATE IN FREE AIR W/°C	MAX TEMP (°C)	DESCRIPTION STRUCTURE	DWG. No.	LEAD CONFIG.
1	C6690		10	10Δ	30Δ	45Δ		10m		1.0nΔ						.50k	5.0pΔ		200J	E#	TO18	DD
2	C6691		10	10Δ	25Δ	25Δ		10m		1.0nΔ						.50k	5.0pΔ		200J	E#	TO18	DD
3	C6692		6.0	10Δ	25Δ	25Δ		10m		1.0nΔ						.90k	5.0pΔ		200J	E#	TO18	DD
4	UC755		6.0	20		30			10m	1.0n	0.0	20	2.0m		50u		6.0p#			PLØ	TO18	
5	UC756		10	20		30			15m	1.0n	0.0	20	1.0m		50u		6.0p#			PLØ	TO18	
6	2N3687	25mt	1.1	20		50	.50m	50m	.50m	.10n	0.0	20	.50m	1.5m	5.0u%		4.0p#	2.0m	200S	Ø	TO72	DH
7	2N3687A	25mt	1.2t	20		50	500u	50m	500u	100p	0.0	20	500u	1.5m	500n		4.0p#	2.0m	200S	#*	TO72	DH
8	2N3686	60mt	1.8	20		50	1.2m	50m	1.2m	.10n	0.0	20	1.0m	2.0m	10u%		4.0p#	2.0m	200S	Ø	TO72	DH
9	2N3686A	60mt	2.0t	20		50	1.2m	50m	1.2m	100p	0.0	20	1.0m	2.0m	1.0u		4.0p#	2.0m	200S	#*	TO72	DH
10#	3SK29	80m	5.0t	10Δ	20t	30	10m		1.0m*	10p	0.0	10	.30m		10u		4p#*	1.0m	100	*Ø	TO72	DU
11#	C91	87m	15	10	25Δ	25Δ	10n	50m	7.0m							200k	3.0pt*	2.0m	200A	ØØ	TO18	DD
12#	0T3	90m	12%		80	110Δ		100u	900u	6.0u		35	70u	80uΔ	3.0u		900f%	1.3m	95	Ge	TO5	
13#	2SK11	100m	6.0	10		20Δ		10m	6.5m	1.0n	0.0	10	.70m	3.5m			3.5pt	.80m	150J	PEΔØ	TO17	DG
14#	2SK12	100m	4.5	10		20Δ		10m	5.0m	.10n	0.0	10	.80m	3.2m			3.5pt	.80m	150J	PEΔØØ	TO17	DG
15#	2SK13	100m	4.5	10		12		10m	5.0m	1.0n	0.0	10	.80m	3.2m			3.5pt	.80m	150J	ΔØ	TO17	DG
16#	2SK16H	100m			1.5	20	10m	10m	7.0m	1.0n	6.0		1.0m	6.0m			9.0p		150J			
17▼#	2SK17GR	100m	6.0	10		20		10m	6.5mΔ	1.0n	0.0	10	700u				6.0p#	1.0m	125J	PEØ#	R67a	DA
18▼#	2SK17O	100m	6.0	10		20		10m	1.4mΔ	1.0n	0.0	10	700u				6.0p#	1.0m	125J	PEØ#	R67a	DA
19▼#	2SK17R	100m	6.0	10		20		10m	750uΔ	1.0n	0.0	10	700u				6.0p#	1.0m	125J	PEØ#	R67a	DA
20▼#	2SK17Y	100m	6.0	10		20		10m	3.0mΔ	1.0n	0.0	10	700u				6.0p#	1.0m	125J	PEØ#	R67a	DA
21	3SK14	100m	5.0	10							0.0	10			10u						TO72	
22#	3SK15	100m	2.0%	6.0Δ	25t	20	10m		5.0mΔ	10p	1.0Ø	6.0	500u	1.0mΔ	40u		4.0p*	800u	150S	*	TO72	DUØ
23#	3SK15A	100m	2.0%	6.0Δ	25t	20	10m		5.0mΔ	10p	1.0Ø	6.0	500u	1.0mΔ	40u		4.0p*	800u	150S	*	TO72	DUØ
24#	3SK16	100m	2.0%	6.0Δ	25t	20	10m		5.0mΔ	10p	1.0Ø	6.0	500u	1.0mΔ	40u	1.0k%	4.0p*	800u	150S	*	TO72	DUØ
25#	3SK17	100m	2.0%	6.0Δ	15t	20	10m		5.0mΔ	1.0n	1.0Ø	6.0	500u	1.0mΔ	40u		4.0p*	800u	150S	*	TO72	DUØ
26#	3SK20H	100m			20		10m		5.0m		5.0		.60m	4.5m	100u		5.0p		150J	*	TO18	
27#	3SK21H	100m			20		10m		5.0m	1.0n	5.0		2.5m				5.0p		150J	*	TO18	
28	40468	100m	6.0t	20	20	8.0	20m		50mΔ	.20n		15	7.5mΔ				10p#	4.0m	125A	Ø*	TO104	DW
29	40559	100m	6.0t	20	20	8.0	20m		50mΔ	1.0n							5.5p#	4.0m	125A	Ø*	TO104	DW
30#	NKT80111	100m	6.0	10		20		10m	6.0m	10n	0.0	10	.70m	3.5m		.45k	3.5p	.80m	150	#	TO17	DG
31#	NKT80112	100m	4.5	10		20		10m	5.0m	.10n	0.0	10	.80m	3.2m		.45k	3.5p	.80m	150	#	TO17	DG
32#	NKT80113	100m	4.5	10		12		10m	5.0m	.10n	0.0	10	.80m	3.2m		.45k	3.5p	.80m	150	#	TO17	DG
33▼	SD5050*	112m	5.0t	*	25	25	25m	100u	5.0 Ø*	1.0n	10	10	500			250 Δ	1.5pt*	1.1m	125J	*Ø		
34▼	SD5051*	112m	5.0t	*	25	40	25m	100u	5.0 Ø*	3.0p	10	10	500			250 Δ	1.5pt*	1.1m	125J	*Ø		
35	2N4038	120m		*	25	50	20m		100u			6.0	1.5m	2.5m		20k	2.5pt	150m	175S	*	TO72	DR
36	2N4039	120m		Δ	25	50	20m		1.5m			6.0	1.2m	2.5m		20k	2.5pt	150m	175S	*	TO72	DR
37	2N3685	150mt	3.2	20		50	3.0m	50m	3.0m	.10n	0.0	20	1.5m	2.5m	25u%		4.0p#	2.0m	200S	Ø	TO72	DH
38	2N3685A	150mt	3.5t	20		50	3.0m	50m	3.0m	100p	0.0	20	1.5m	2.5m	2.5u		4.0p#	2.0m	200S	#*	TO72	DH
39	3N138	150m		Δ	35	10	50m			10p						300 %	5.0p#		150S		TO72	DW
40	3N139	150m	6.0t	15Δ	35	10	50m		25m%	1.0n							7.0p#		150S		TO72	DW
41	40461	150m	6.0t	12Δ	25	10			14m	.01n	0.0	12	3.5mΔ			13k	5.0p#	.66m	125A	*	TO72	DRØ
42	A191	150m	4.0t	15Δ	20	20	10m	5.0m	10m	.50n	0.0	15	2.0m	8.0m			5.0p#	1.0m	175J	#	TO72	DH
43	A610L▼	150m	4.0t	15	30	30	10m	5.0m	8.0m	.10n	0.0	15	2.0m	8.0m			5.0p#	1.0m	200S		X70a	DH
44	A610S▼	150m	4.0t	15	30	30	10m	5.0m	8.0m	.10n	0.0	15	2.0m	8.0m			5.0p#	1.0m	200S		X70	DH
45	A611L▼	150m	4.0t	15	30	30	10m	5.0m	8.0m	.10n	0.0	15	2.0m	8.0m			5.0p#	1.0m	200S		X70a	DH
46	A611S▼	150m	4.0t	15	30	30	10m	5.0m	8.0m	.10n	0.0	15	2.0m	8.0m			5.0p#	1.0m	200S		X70	DH
47#	BFS67P	150m	6.0	15	50	50	50m	10m	10m	100p	0.0	15	1.5m	6.5m	20u		6.0p		150	PE	u17c	E
48#	BFS68P	150m	8.0	15	30	30	50m	10m	25m	500p	0.0	15	3.5m	6.5m	35u		6.0p		150	PE	u17c	E
49#	BSV38Pt	150mΔ	10t	15	25	25	150m	10m	50m#%	250p						250 %	18p#	1.2m	150S	PEØ	u17c	E
50#	BSV39P	150mΔ	6.0t	15	25	25	150m	10m	100m%	500p						70	18p#	1.2m	150S	PEØ	u17c	E
51	MEM554	150m	4.0t	20$	20	20			30mΔ	.10n	4.0	15	8.0m	12mΔ			7.0p#	3.0m	125J	*Ø	TO72	DX
52	MEM554C	150m	4.0t	20$	20	10			30mΔ	.10n	4.0	15	6.0m				7.0p#	6.0m	125J	*Ø	TO72	DX
53	MEM557	150m	4.0t	15Δ	20	10			30mΔ	.10n	10Ø	15	8.0m	10mΔ		.30kt	5.0p#	3.0m	150J	*Ø	TO72	DW
54	MEM571C	150m	4.0t	15Δ	20	15			30m	10n	10Ø	15	8.0m	10mΔ		200	6.0p#		150J	Ø*	TO72	DX
55#	MK10	150m	2.5%	10Δ	20t	30Δ	20m	10m	20mΔ	100n	5.0Ø	10	3.0m%		50u		4.0p*	2.0m	125J	PEØt	TO92	DA
56#	PL1091	150m				50				.10n	0.0	15	1.5m%	4.5m%			6.0p#		175S	PE	u50	E
57#	PL1092	150m				50				.10n	0.0	15	3.0m%	6.5m%			6.0p#		175S	PE	u50	E
58#	PL1093	150m				30				.50n	0.0	15	3.5m%	6.5m%			6.0p#		175S	PE	u50	E
59#	PL1094	150m				50				.10n						250kt	6.0p#		175S	PEØ	u50	E
60	SFT601	150m	5.0	20	40	50	10m		.25m		1Ø	20	.35m	.4mΔ				1.0m	175S	PL*	TO72	DN
61	SFT602	150m	10	20	40	50	10m		1.5m		1Ø	20	.35m	.4mΔ				1.0m	175S	PL*	TO72	DN
62	SFT603	150m	20	20	40	50	10m		5.0m		1Ø	20	.35m	.4mΔ				1.0m	175S	PL*	TO72	DN
63#	SFT604	150m			30	50				.10nΔ	1Ø	10	.30m	40mΔ		200k		1.0m	175S	*	TO72	DN
64#	3SK32	170m	2.5t	10	20	10	15m		5.0mΔ	.10n	5.0	10	5.0m%	10m%			5.0p#	1.7m	150S	$*	TO72	EAØ
65	2N4417	175m	6.0t	15Δ	30	30		10m	15m	.10n	0.0	15	4.5m	725m	50u		3.5p#	1.0m	200S		u23	DB
66	MEM562C	175m	4.0	10*	20	10			5.0m#Ø	100p		10	1.0				5.0p		100A	*	TO72	DR
67	UC155W	175m	10	20	30Δ	30	30m	10m	30m	.10n						.13k	3.5p	1.0m	200	PE	u23	DB
68	2N3796	200m	4.0t	10	25	10	20m		3.0m	1.0p	0.0	10	.90m	1.8m	25u%		7.0p#	1.1m	200S		TO18	DAØ
69	2N3797	200m	7.0t	10	20	10	20m		6.0m	1.0p	0.0	10	1.5m	3.0m	60u%		8.0p#	1.1m	200S		TO18	DAØ
70	2N5163	200m	8.0t	15Δ	25	25		50m	40m	10n	0.0	15	2.0m	9.0m	200u%	.50k%	20p#	2.0m	125J	Ø	TO106	DB
71▼	2N5716	200m	3.0t	15		40Δ			250uΔ%	1.0n	0.0	15	200u	1.0m	25u		5.0p#	2.0m	150S	#	TO92	DD
72▼	2N5717	200m	5.0t	15		40Δ			1.0mΔ%	1.0n	0.0	15	400u	1.6m	25u		5.0p#	2.0m	150S	#	TO92	DD
73▼	2N5718	200m	8.0t	15		40Δ			4.0mΔ%	1.0n	0.0	15	500u	2.0m	25u		5.0p#	2.0m	150S	#	TO92	DD
74▼#	2SK19BL	200m	3.0%	10		18		10m	24mΔ	10n	0.0	10	7.0mΔ					2.0m	125J	PEØ#	R67a	DD
75▼#	2SK19GR	200m	3.0%	10		18		10m	14mΔ	10n	0.0	10	7.0mΔ					2.0m	125J	PEØ#	R67a	DD
76▼#	2SK19Y	200m	3.0%	10		18		10m	7.0mΔ	10n	0.0	10	7.0mΔ					2.0m	125J	PEØ#	R67a	DD
77#	3SK22	200m	5.5	10		18Δ		10m	24m	100n	0.0	10	7.0mΔ				4.5p#	1.6m	150J	ΔØ	TO72	DW
78#	3SK23	200m	5.5	10		15Δ		10m	24m	100n	0.0	10	6.0m	12m			4.5p#	1.6m	150J	ΔØ	TO72	DW
79#	3SK28	200m	5.0	10		15		10m	22m	20n	0.0	10	6.0m	12m			6.0p#	1.6m	150J	ΔØ	TO72	DW
80#	3SK35	200m	4.0t	15$	20t	6.0	30m		24m	100n	4.0	15	10 Δ				5.5p#*	2.7m	150A	PE*	TO72	DX
81#	3UT40	200m	2.0%	10Δ	20t	150	20m		5.0mΔ	1.0p	1.0Ø	10	500u	1.0mΔ	10u		6.0p*	1.6m	150S	*	TO33	DUØ
82	A498	200m	5.0t	20Δ			20m			1.0n	4.0	13	.80m%	1.2m%			4.5p*	2.0m	125J	PE*$	TO72	DXØ
83▼	BFS28	200m	5.0	20	20t		20m			1.0n	4.0	13	8.0m%					2.0m	135J	*	TO72	DXØ
84#	BFW96	200m	4.5	20	30	30	50m		30m			20	1.3m	2.5mΔ			5.0p	2.5m	125J	*	TO72	DH
85#	C82A	200m	5.0	50			10m						.03m	.20m	.20u		10p*		150J	Ø	R111	DB
86#	C82B	200m	10	50			10m						.03m	.20m	.20u		10p*		150J	Ø	R111	DB
87#	C83A	200m	10	50			10m						.03m	.20m	.40u		10p*		150J	Ø	R111	DB
88#	C83B	200m	15	50			10m						.03m	.20m	.40u		10p*		150J	Ø	R111	DB
89#	C84	200m	20	50			10m						.04m	.20m	.40u		10p*		150J	Ø	R111	DB
90#	C85	200m	25	50			10m						.05m	.25m	1.0u		10p*		150J	Ø	R111	DB
91	C680	200m	2.5	10Δ	30Δ	30Δ		50m	.40m	10nΔ	0.0	10	.20m	.50m	10ut		3pt*	1.1m	200J	E#	TO5	DD
92	C680A	200m	2.5	10Δ	30Δ	30Δ		50m	.40m	1.0nΔ	0.0	10	.20m	.50m	10ut		3pt*	1.1m	200J	E#	TO5	DD
93	C681	200m	2.5	10Δ	30Δ	30Δ		50m	.40m	10nΔ	0.0	10	.20m	.50m	10ut		3pt*	1.1m	200J	E#	TO18	DD
94	C681A	200m	2.5	10Δ	30Δ	30Δ		50m	.40m	1.0nΔ	0.0	10	.20m	.50m	10ut		3pt*	1.1m	200J	E#	TO18	DD
95	C682	200m	5.0	10Δ	30Δ	30Δ		50m	1.6m	10nΔ	0.0	10	.40m	1.0m	20ut		3pt*	1.1m	200J	E#	TO5	DD
96	C682A	200m	5.0	10Δ	30Δ	30Δ		50m	1.6m	1.0nΔ	0.0	10	.40m	1.0m	20ut		3pt*	1.1m	200J	E#	TO5	DD
97	C683	200m	5.0	10Δ	30Δ	30Δ		50m	1.6m	10nΔ	0.0	10	.40m	1.0m	20ut		3pt*	1.1m	200J	E#	TO18	DD
98	C683A	200m	5.0	10Δ	30Δ	30Δ		50m	1.6m	1.0nΔ	0.0	10	.40m	1.0m	20ut		3pt*	1.1m	200J	E#	TO18	DD
99	C684	200m	10	10Δ	30Δ	30Δ		50m	6.0m	10nΔ	0.0	10	.60m	1.5m	60ut		3pt*	1.1m	200J	E#	TO5	DD
100	C684A	200m	10	10Δ	30Δ	30Δ		50m	6.0m	1.0nΔ	0.0	10	.60m	1.5m	60ut		3pt*	1.1m	200J	E#	TO5	DD
101	C685	200m	10	10	30Δ	30Δ		50m	6.0m	10nΔ	0.0	10	.60m	1.5m	60ut		3pt*	1.1m	200J	E#	TO18	DD
102	C685A	200m	10	10Δ	30Δ	30Δ		50m	6.0m	1.0nΔ	0.0	10	.60m	1.5m	60ut		3pt*	1.1m	200J	E#	TO18	DD
103	FE0654A	200m	8.0t	15	25	25		50m	40mΔ	10n	0.0	15	4.5m%	9m%	52u	.15kt	20p#	2.0m	125J	DPL	TO106	DB
104	FE0654B	200m	4.0t	15	25	25		50m	12mΔ	10n	0.0	15	3.5m%	8m%	27u	.22kt	20p#	2.0m	125J	DPL	TO106	DB
105	FE0654C	200m	2.5t	15	25	25		50m	4.0mΔ	10n	0.0	15	2.0m%	6m%	24u	.30kt	20p#	2.0m	125J	DPL	TO106	DB
106	MFE3001	200m	8.0t	10$	20	20	20m		5.0mØ	10p	0.0	10	700u	3.5m	100u%		5.0p	1.1m	200J	*	TO72	DG
107	MPF102	200m	8.0t	15	25	25		10m	20m%Δ	2.0n	0.0	15	2.0m	7.5			7.0p#	2.0m	125J	#	TO92	DD
108	NPC108	200m	6.0	15Δ	25Δ	25		10m	25m%Δ	1.0n	0.0	15	4.0mt	8.0m%	100		5.0p#	2.0m	125S	PEtØ	R110	DB
109	NPC108A	200m	5.0	15Δ	25Δ	25		10m	25m%Δ	1.0n	0.0	15	4.0mt	8.0m%	100		5.0p#	2.0m	125S	PEtØ	R110	DB
110▼#	SES3819	200m	7.5	15	25	25		10m	20m	2.0n	0.0	15	2.0	6.5	50m		8.0p	2.0		t#	TO98	DA

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

7. SILICON FIELD EFFECT TRANSISTORS - N CHANNEL

IN ORDER OF (1) DISSIPATION (2) TYPE No.

LINE No.	TYPE No.	MAX. DISS @25°C (W)	MAX. Vp @ Id=0 (V)	MAX. Vp & Vds (V)	ABS MAX RATINGS@25°C BVdss (V)	BVgss (V)	Id (A)	Ig (A)	MAX. Id(ON)@ Vgs=0& Vds>Vp (A)	MAX. Igss@ Vgs>Vp &Vds=0	TEST COND Vgs (V)	Vds (V)	COMMON SOURCE gfs (mhos) MIN	gfs (mhos) MAX	Yos mhos	Rds (Ω)	MAX. Cis (F)	DERATE IN FREE AIR W/°C	MAX TEMP (°C)	DESCRIPTION STRUCTURE	DWG. No.	LEAD CONFIG
1#	SI231N	200m	.70	5.0		15Δ			150u	500p	0.0	10	140u	500u			6.0p		200J	PL	TO72	DH
2#	SI232N	200m	1.0	5.0		15Δ			300u	500p	0.0	10	280u	800u			6.0p		200J	PL	TO72	DH
3#	SI233N	200m	1.4	5.0		15Δ			600u	500p	0.0	10	400u	1.0m			6.0p		200J	PL	TO72	DH
4#	SI234N	200m	2.0	5.0		15Δ			1.5m	500p	0.0	10	650u	1.5m			6.0p		200J	PL	TO72	DH
5#	SI235N	200m	3.5	5.0		15Δ			3.0m	500p	0.0	10	900u	2.0m			6.0p		200J	PL	TO72	DH
6#	SI236N	200m	5.0	5.0		15Δ			6.0m	500p	0.0	10	1.3m	3.0m			6.0p		200J	PL	TO72	DH
7	U183	200m	8.0	15		25		10m	20mΔ	2.0n	0.0	15	2.0m	6.5m	50u%		8.0p#	2.0m	150S	#	TO72	DH
8▼	3N175†	225m	1.6Δ	10*	35	35	50m		20m#Ø	200p						200 %	5.0p#	1.8m	200S	*☑	TO72	DR
9▼	3N176†	225m	2.5Δ	10*	30	30	50m		15m#Ø	200p						300 %	5.0p#	1.8m	200S	*☑	TO72	DR
10▼	3N177†	225m	3.5Δ	10*	20	20	50m		10m#Ø	200p						500 %	7.0p#	1.8m	200S	*☑	TO72	DR
11▼	M116	225m	5.0		30		50			100p						100	10p	2.2m	125	*	TO72	
12▼	M116A	225m	5.0		30		50			1.0p						100	8.0p	2.2m	125	*	TO72	
13▼	MEM200†	225m	1.6Δ	10*	35	35	50m									200	5.0p#	1.5m	200S	*	TO22	DR
14▼	MEM201†	225m	2.5Δ	10*	30	30	50m									300	5.0p#	1.5m	200S	*	TO22	DR
15▼	MEM202†	225m	3.5Δ	10*	20	20	50m									500	7.0p#	1.5m	200S	*	TO22	DR
16	MEM557C	225m	4.0†	15Δ	20	5.0			30m	100p	10Ø	15	6.0m	8.0mΔ		200 †	5.0p#		125J	Ø*	TO72	DW
17	MEM562†	225m	4.0Δ	4.0*	20	10			10n	10p	2.0Ø	10	60m			150 †	4.0p#	2.2m	125J	*	TO72	DR
18	MEM563	225m	4.0Δ	4.0*	20	10			10n	10p	2.0Ø	10	2.0m			50 †	5.0p#	2.2m	125J	*	TO72	DR
19	MEM564C	225m	4.0†	20Δ	20	15			30m	10n	4.0	15	8.0m	12mΔ			8.0p#		125J	Ø*	TO72	DX
20	MMT3823	225m	8.0†	15Δ	30	30		10m	20m%	1.0n	0.0	15	3.0m%	8.0m†	25u*		4.0p#*	2.0m	135J	*Ø	u43	DD
21	2N3921▼	250m	3.0†	10	50	50			10m	1.0n	0.0	10	1.5m	7.5m	35u		18p#	1.7m	200S	Ø	L21d	
22	2N3922▼	250m	3.0†	10	50	50			10m	1.0n	0.0	10	1.5m	7.5m	35u		18p#	1.7m	200S	Ø	L21d	
23	2N3934▼	250m	3.0†	10	50	50			1.3m	400p	0.0	10	300u	900u	10u		7.0p#	1.7m	200S	Ø	L21d	
24	2N3935▼	250m	3.0†	10	50	50			1.3m	400p	0.0	10	300u	900u	10u		7.0p#	1.7m	200S	Ø	L21d	
25	2N3954*	250mΔ	4.5†	20Δ	50	50		50m	5.0m	.10n	0.0	20	1.0m	3.0m	35u		4.0p#	2.9m	200S	Ø	L61a	
26	2N3954A▼	250mΔ	4.5†	20Δ	50	50		50m	5.0m	.10n	0.0	20	1.0m	3.0m	35u		4p#		200S	Ø	L61a	
27	2N3955*	250mΔ	4.5†	20Δ	50	50		50m	5.0m	.10n	0.0	20	1.0m	3.0m	35u		4.0p#	2.9m	200S	Ø	L61a	
28	2N3955A▼	250mΔ	4.5†	20Δ	50	50		50m	5.0m	.10n	0.0	20	1.0m	3.0m	35u		4.0p#		200S	Ø	L61a	
29	2N3956*	250mΔ	4.5†	20Δ	50	50		50m	5.0m	.10n	0.0	20	1.0m	3.0m	35u		4.0p#	2.9m	200S	Ø	L61a	
30	2N3957*	250mΔ	4.5†	20Δ	50	50		50m	5.0m	.10n	0.0	20	1.0m	3.0m	35u		4.0p#	2.9m	200S	Ø	L61a	
31	2N3958*	250mΔ	4.5†	20Δ	50	50		50m	5.0m	.10n	0.0	20	1.0m	3.0m	35u		4.0p#	2.9m	200S	Ø	L61a	
32	2N5045▼	250m	4.5†	15		50		30m	8.0m	.25n	0.0	15	1.5m	6.0m	25u		8.0p#	1.7m	200S	§#	L21	
33	2N5046▼	250m	4.5†	15		50		30m	8.0m	.25n	0.0	15	1.5m	6.0m	25u		8.0p#	1.7m	200S	§#	L21	
34	2N5047▼	250m	4.5†	15		50		30m	8.0m	.25n	0.0	15	1.5m	6.0m	25u		8.0p#	1.7m	200S	§#	L21	
35	2N5196▼	250mΔ	4.0†	20Δ	50	50		50m	7.0mΔ	25p	0.0	20	1.0m	4.0m	50u		6.0p#	2.6m	200S	Ø#	L21b	
36	2N5197▼	250mΔ	4.0†	20Δ	50	50		50m	7.0mΔ	25p	0.0	20	1.0m	4.0m	50u		6.0p#	2.6m	200S	Ø#	L21b	
37	2N5198▼	250mΔ	4.0†	20Δ	50	50		50m	7.0mΔ	25p	0.0	20	1.0m	4.0m	50u		6.0p#	2.6m	200S	Ø#	L21b	
38	2N5199▼	250mΔ	4.0†	20Δ	50	50		50m	7.0mΔ	25p	0.0	20	1.0m	4.0m	50u		6.0p#	2.6m	200S	Ø#	L21b	
39	2N5452	250mt	4.5†	20Δ	50Δ	50Δ		50m	5.0mΔ	100p	0.0	20	1.0m	3.0m	3.0u		4.0p#	2.8m	200J	#Ø	L58	
40	2N5453	250mt	4.5†	20Δ	50Δ			50m	5.0mΔ	100p	0.0	20	1.0m	3.0m	3.0u		4.0p#	2.8m	200J	#Ø	L58	
41	2N5454	250mt	4.5†	20Δ	50Δ			50m	5.0mΔ	100p	0.0	20	1.0m	3.0m	3.0u		4.0p#	2.8m	200J	#Ø	L58	
42	2N5515▼	250m	4.0†	20Δ	40	40		50m	7.5mΔ	250p	0.0	20	1.0m	4.0m	10u%		2.5p#	3.8m	150S	Ø	L61b	
43	2N5516▼	250m	4.0†	20Δ	40	40		50m	7.5mΔ	250p	0.0	20	1.0m	4.0m	10u%		2.5p#	3.8m	150S	Ø	L61b	
44	2N5517▼	250m	4.0†	20Δ	40	40		50m	7.5mΔ	250p	0.0	20	1.0m	4.0m	10u%		2.5p#	3.8m	150S	Ø	L61b	
45	2N5518▼	250m	4.0†	20Δ	40	40		50m	7.5mΔ	250p	0.0	20	1.0m	4.0m	10u%		2.5p#	3.8m	150S	Ø	L61b	
46	2N5519▼	250m	4.0†	20Δ	40	40		50m	7.5mΔ	250p	0.0	20	1.0m	4.0m	10u%		2.5p#	3.8m	150S	Ø	L61b	
47	2N5520▼	250m	4.0†	20Δ	40	40		50m	7.5mΔ	250p	0.0	20	1.0m	4.0m	10u%		2.5p#	3.8m	150S	Ø	L61b	
48	2N5521▼	250m	4.0†	20Δ	40	40		50m	7.5mΔ	250p	0.0	20	1.0m	4.0m	10u%		2.5p#	3.8m	150S	Ø	L61b	
49	2N5522▼	250m	4.0†	20Δ	40	40		50m	7.5mΔ	250p	0.0	20	1.0m	4.0m	10u%		2.5p#	3.8m	150S	Ø	L61b	
50	2N5523▼	250m	4.0†	20Δ	40	40		50m	7.5mΔ	250p	0.0	20	1.0m	4.0m	10u%		2.5p#	3.8m	150S	Ø	L61b	
51	2N5524▼	250m	4.0†	20Δ	40	40		50m	7.5mΔ	250p	0.0	20	1.0m	4.0m	10u%		2.5p#	3.8m	150S	Ø	L61b	
52	2N5545▼	250m	4.5†	15		50		50p	8.0m	100p			1.5m	6.0m	25u		6.0pØ	1.7m	200S	#Ø	L61a	
53	2N5546▼	250m	4.5†	15		50		50p	8.0m	100p			1.5m	6.0m	25u		6.0pØ	1.7m	200S	#Ø	L61a	
54	2N5547▼	250m	4.5†	15		50		50p	8.0m	100p			1.5m	6.0m	25u		6.0pØ	1.7m	200S	#Ø	L61a	
55	2N5561▼	250m	3.0†	10Δ	50	50	10m		10m%	100p	.70Ø	10	2.0m	3.0m	4.0u		7.0p#	2.8m	200S	Ø	L61a	
56	2N5562▼	250m	3.0†	10Δ	50	50	10m		10m%	100p	.70Ø	10	2.0m	3.0m	4.0u		7.0p#	2.8m	200S	Ø	L61a	
57	2N5563▼	250m	3.0†	10Δ	50	50	10m		10m%	100p	.70Ø	10	2.0m	3.0m	4.0u		7.0p#	2.8m	200S	Ø	L61a	
58#	BFX63	250m	4.5†	20	30	30	50m		30m		5Ø	20	1.3m	2.5mΔ		.18kt	.75pØ	2.5m	125J	*	TO33	DW
59#	BSX82Ø	250m			30	30	50m		30m							.18kt	.75pØ	2.5m	125J	*	TO33	DW
60#	C94E	250m	5.0	10	25Δ	25Δ		10m	10m	.50n		10	2.0m	3mΔ			3pt*	2.0m	150		TO92	DA
61#	C95E	250m	8.0	10	25Δ	25Δ		10m	18m	.50n		10	2.0m	4mΔ			3pt*	2.0m	150		TO92	DA
62#	C96E	250m	8.0	10	25Δ	25Δ		10m	18m	2.0n		10	2.0m				3pt*	2.0m	150		TO92	DA
63	E100	250m	10	20		30		50m	20m	.50n	0.0	20	.50m			3.0k	8.0p#	2.5m	125S	#☑	X45	DB
64	E101	250m	1.5	20		30		50m	1.0m	.50n	0.0	20	.50m			3.0k	8.0p#	2.5m	125S	#☑	X45	DB
65	E102	250m	4.0	20		30		50m	4.5m	.50n	0.0	20	1.0m			1.2k	8.0p#	2.5m	125S	#☑	X45	DB
66	E103	250m	10	20		30		50m	20m	.50n	0.0	20	1.5m			.65k	8.0p#	2.5m	125S	#☑	X45	DB
67▼#	MEF101	250m	10	20		30		50m	20m	500u	0.0	20	500m			2.0k	8.0p#	2.5	125S	#	X45	DB
68▼#	MEF102	250m	1.5	20		40		50m	1.0m	100u	0.0	20	1.0			2.0k	8.0p#	2.5	125S	#	X45	DB
69▼#	MEF103	250m	4.0	20		40		50m	4.5m	100u	0.0	20	1.5			1.0k	8.0p#	2.5	125S	#	X45	DB
70▼#	MEF104	250m	10	20		50		50m	20m	100u	0.0	20	2.0			500	8.0p#	2.5	125S	#	X45	DB
71	SU2074Ø	250m	3.0	10		50			1.3m	.10n	.2Ø	10	.30m				7.0p%		200J		L21	
72	SU2075Ø	250m	3.0	10		50			1.3m	.10n	.2Ø	10	.30m				7.0p%		200J		L21	
73	SU2098▼	250m	4.0	10		30Δ			8.0m	.40n	0.0	10	1.0m				7.0p#	1.7m	200J	Ø	L21	
74	SU2098A▼	250m	4.0†	10		50		50p	8.0mΔ	.10n	0.0	10	1.5m	4.5m	15u%		6.0p#	1.7m	200J	§Ø	R131	
75	SU2098B▼	250m	4.0†	10		50		50p	8.0mΔ	.10n	0.0	10	1.5m	4.5m	15u%		6.0p#	1.7m	200J	§Ø	R131	
76	SU2099▼	250m	4.0	10		30Δ			8.0m	.40n	0.0	10	1.0m				7.0p#	1.7m	200J	Ø	L21	
77	SU2099A▼	250m	4.0†	10		50		50p	8.0mΔ	.10n	0.0	10	1.5m	4.5m	15u%		6.0p#	1.7m	200J	§Ø	R131	
78	U248▼	250mt	4.5	10		40		50m	.50m%	.01n	0.0	10	.07m	.25m	u*		3.0p#	3.8m	S	#Ø	L58a	
79	U248A▼	250mt	4.5	10		40		50m	.50m%	.00n	0.0	10	.07m	.25m	u*		3.0p#	3.8m	S	#Ø	L58a	
80	U249▼	250mt	4.5	10		40		50m	.50m%	.01n	0.0	10	.07m	.25m	u*		3.0p#	3.8m	S	#Ø	L58a	
81	U249A▼	250mt	4.5	10		40		50m	.50m%	.00n	0.0	10	.07m	.25m	u*		3.0p#	3.8m	S	#Ø	L58a	
82	U250▼	250mt	4.5	10		40		50m	500u%	10p	0.0	10	70m	250m			3.0p#	3.8m	150S	#Ø	L58a	
83	U250A▼	250mt	4.5	10		40		50m	500u%	1.0p	0.0	10	70m	250m			3.0p#	3.8m	150S	#Ø	L58a	
84	U251▼	250mt	4.5	10		40		50m	500u%	10p	0.0	10	70m	250m			3.0p#	3.8m	150S	#Ø	L58a	
85	U251A▼	250mt	4.5	10		40		50m	500u%	1.0p	0.0	10	70m	250m			3.0p#	3.8m	150S	#Ø	L58a	
86	UC2147	250m	50	20	30	30		10m		.20n	0.0	20	1.0m		50u	1.2k	6.0p#		200J	PL§Ø	L58	
87	2N3066	300m	9.5	30		50Δ		100m	4.0m	1.0n	0.0	30	400u	1.0m	50ut		10p%	1.7m	200C		TO18	DBØ
88	2N3067	300m	4.5	30		50Δ		100m	1.0m	1.0n	0.0	30	300u	1.0m	20ut		10p%	1.7m	200C		TO18	DBØ
89	2N3068	300m	2.2	30		50Δ		100m	250u	1.0n	0.0	30	200u	1.0m	5.0ut		10p%	1.7m	200C		TO18	DBØ
90	2N3365	300m	12	20		40Δ		10m	4.0m	5.0n	0.0	30	.40m	2.0m	50u		15p%	2.4m	150C		TO18	DBØ
91	2N3366	300m	6.5	20		40Δ		10m	1.0m	5.0n	0.0	30	.25m	1.0m	20u		15p%	2.4m	150C		TO18	DBØ
92	2N3367	300m	2.2	20		40Δ		10m	.25m	5.0n	0.0	30	.10m	1.0m	10u		15p%	2.4m	150C		TO18	DBØ
93	2N3368	300m	12	20		40Δ		10m	12m	5.0n	0.0	30	1.0m	4.0m	80u		20p%	2.4m	150C		TO18	DBØ
94	2N3369	300m	6.5	20		40Δ		10m	2.5m	5.0n	0.0	30	.60m	2.5m	30u		20p%	2.4m	150C		TO18	DBØ
95	2N3370	300m	3.2	20		40Δ		10m	.60m	5.0n	0.0	30	.30m	2.5m	15u		20p%	2.4m	150C		TO18	DBØ
96	2N3436	300m	9.8	20		50Δ		10m	15m	.50n	0.0	20	2.5m	10m	35ut		18p%	1.7m	200C		TO18	DBØ
97	2N3437	300m	4.8	20		50Δ		10m	4.0m	.50n	0.0	20	1.5m	6.0m	20ut		18p%	1.7m	200C		TO18	DBØ
98	2N3438	300m	2.3	20		50Δ		10m	1.0m	.50n	0.0	20	.80m	4.5m	5.0ut		18p%	1.7m	200C		TO18	DBØ
99	2N3452	300m	9.8	20		50Δ		10m	4.0m	.10n	0.0	30	.20m	1.2m	15u		6.0p%	1.7m	200C		TO18	DBØ
100	2N3453	300m	4.8	20		50Δ		10m	1.0m	.10n	0.0	30	.15m	.90m	5.0u		6.0p%	1.7m	200C		TO72	DH
101	2N3454	300m	2.3	20		50Δ		10m	.25m	.10n	0.0	30	.10m	.60m	3.0u		6.0p%	1.7m	200C		TO72	DH
102	2N3455	300m	10	20		50Δ		10m	4.0m	.04n	0.0	30	.40m	1.2m	15u		5.0p%	1.7m	200C		TO72	DH
103	2N3456	300m	4.8	20		50Δ		10m	1.0m	.04n	0.0	30	.30m	.90m	5.0u		5.0p%	1.7m	200C		TO72	DH
104	2N3457	300m	2.3	20		50Δ		10m	.25m	.04n	0.0	30	.15m	.60m	3.0u		5.0p%	1.7m	200C		TO72	DH
105	2N3458	300m	7.8	20		50Δ		10m	15m	.25n	0.0	20	2.5m	10m	35ut		18p%	1.7m	200C		TO18	DBØ
106	2N3459	300m	3.4	20		50Δ		10m	4.0m	.25n	0.0	20	1.5m	6.0m	20ut		18p%	1.7m	200C		TO18	DBØ
107	2N3460	300m	1.8	20		50Δ		10m	1.0m	.25n	0.0	20	.80m	4.5m	5.0ut		18p%	1.7m	200C		TO18	DBØ
108	2N3631	300m	6.0†	10	20†		20m		10m		0.0	10	1.4m	2.8m	120u%		7.5p%	2.0m	200S	*	TO18	DA☑
109	2N3821	300m	4.0†	15	50	50		10m	2.5m	100p	0.0	15	1.5m	4.5mt	10u*		6.0p#	2.0m	200S	PE	TO72	DH
110	JAN2N3821	300m	4.0†	15	50	50		10m	2.5m	100p	0.0	15	1.5m	4.5mt	10u*		6.0p#	2.0m	200S	Ø	TO72	DH

7. SILICON FIELD EFFECT TRANSISTORS - N CHANNEL

IN ORDER OF (1) DISSIPATION (2) TYPE No.

LINE No.	TYPE No.	MAX. DEVICE DISS @25°C (W)	MAX. Vp @ Id=0 (V)	MAX. Vp & Vds (V)	ABS MAX RATINGS@25°C BVdss (V)	BVgss (V)	Id (A)	Ig (A)	MAX. Id(ON)@ Vgs=0& Vds>Vp (A)	MAX. Igss@ Vgs>Vp &Vds=0 (A)	TEST COND Vgs (V)	TEST COND Vds (V)	COMMON SOURCE gfs (mhos) MIN	COMMON SOURCE gfs (mhos) MAX	COMMON SOURCE Yos mhos	Rds (Ω)	MAX. Cis (F)	DERATE IN FREE AIR W/°C	DERATE MAX TEMP (°C)	DESCRIPTION STRUCTURE	DWG. No.	LEAD CONFIG
1	2N3822	300m	6.0†	15	50	50		10m	10m	100p	0.0	15	3.0m	6.5 †	20u*		6.0p#	2.0m	200S	PE	TO72	DH
2	JAN2N3822	300m	6.0†	15	50	50		10m	10m	100p	0.0	15	3.0m	6.5 †	20u*		6.0p#	2.0m	200S	Ø	TO72	DH
3	2N3823	300m	8.0	15Δ	30	30Δ			20m	.50n	0.0	15	3.5m	6.5m	200u		6.0p#	2.0m	200S		TO72	DH
4	JAN2N3823	300m	8.0†	15	30	30		10m	20m	500p	0.0	15	3.5m	6.5 †	35u*		6.0p#	2.0m	200S		TO72	DH
5	2N3824	300m		Δ	50	50Δ		10m		100p							6.0p#	2.0m	200S	Ø	TO72	DH
6	2N3966†	300m		Δ	30	30Δ		10m	2.0m	100p							6.0p#	1.7m	200S		TO72	DH
7	2N3967	300m	5.0†	20Δ	30	30		10m	10m	.10n	0.0	20	1.6m	2.4m	35u%		5.0p#	1.7m	200S		TO72	DH
8	2N3967A	300m	5.0†	20Δ	30	30		10m	10m	.10n	0.0	20	1.6m	2.4m	35u%		5.0p#	1.7m	200S		TO72	DH
9	2N3968	300m	3.0†	20Δ	30	30		10m	5.0m	.10n	0.0	20	1.4m	2.0m	15u%		5.0p#	1.7m	200S		TO72	DH
10	2N3968A	300m	3.0†	20Δ	30	30		10m	5.0m	.10n	0.0	20	1.4m	2.0m	15u%		5.0p#	1.7m	200S		TO72	DH
11	2N3969	300m	1.7†	20Δ	30	30		10m	2.0m	.10n	0.0	20	.95m	1.4m	5.0u%		5.0p#	1.7m	200S		TO72	DH
12	2N3969A	300m	1.7†	20Δ	30	30		10m	2.0m	.10n	0.0	20	.95m	1.5m	5.0u%		5.0p#	1.7m	200S		TO72	DH
13	2N4117	300m	1.8	10Δ	40	40	50m	50m	.09mΔ	.01n	0.0	10	70m%	210m	3.0u		3.0p#	2.0m	175S		TO72	DH
14	2N4117A	300m	1.8†	10Δ	40	40	50m	50m	90u	1.0p	0.0	10	70u	210u	3.0u%		3.0p#	2.0m	175S		TO72	DH
15	2N4118	300m	3.0	10Δ	40	40	50m	50m	.24mΔ	.01n	0.0	10	80m%	250m	5.0u		3.0p#	2.0m	175S		TO72	DH
16	2N4118A	300m	3.0†	10Δ	40	40	50m	50m	240u	1.0p	0.0	10	80u	250u	5.0u%		3.0p#	2.0m	175S		TO72	DH
17	2N4119	300m	6.0	10Δ	40	40	50m	50m	.60mΔ	.01n	0.0	10	100m%	330m	10u		3.0p#	2.0m	175S		TO72	DH
18	2N4119A	300m	6.0†	10Δ	40	40	50m	50m	600n	1.0p	0.0	10	100u	330u	10u%		3.0p#	2.0m	175S		TO72	DH
19	2N4139	300m	8.0†	20Δ	50	50		10m	11m	1.0n	0.0	20	3.5m	7.0m	35u		18p#	1.7m	200S	Ø	TO18	DBØ
20♦	2N4220	300m	4.0†	15Δ	30	30	15m	10m	3.0m	100p	0.0	15	1.0m	4.0m	10u		6.0p#	2.0m	200S		TO72	DJ
21♦	2N4220A	300m	4.0†	15Δ	30	30	15m	10m	3.0m	100p	0.0	15	1.0m	4.0m	10u		6.0p#	2.0m	200S	Ø	TO72	DJ
22♦	2N4221	300m	6.0†	15Δ	30	30	15m	10m	6.0m	100p	0.0	15	2.0m	5.0m	20u		6.0p#	2.0m	200S		TO72	DJ
23♦	2N4221A	300m	6.0†	15Δ	30	30	15m	10m	6.0m	100p	0.0	15	2.0m	5.0m	20u		6.0p#	2.0m	200S	Ø	TO72	DJ
24♦	2N4222	300m	8.0†	15Δ	30	30	15m	10m	15m	100p	0.0	15	2.5m	6.0m	40u		6.0p#	2.0m	200S		TO72	DJ
25♦	2N4222A	300m	8.0†	15Δ	30	30	15m	10m	15m	100p	0.0	15	2.5m	6.0m	40u		6.0p#	2.0m	200S	Ø	TO72	DJ
26	2N4223	300m	8.0†	15Δ	30	30	20m	10m	18m%	.25n	0.0	15	3.0m†	7.0m†				2.0m	175J	Ø	TO72	DJ
27	2N4224	300m	8.0†	15Δ	30	30	20m	10m	20m%	.50n	0.0	15	2.0m†	7.5m†				2.0m	175J		TO72	DJ
28	2N4302	300m	4.0	20	30Δ	30Δ		10m	5.0m	1.0n	0.0	20		1.0m	50u%		6.0p#	2.5m	125J		R97b	
29	2N4303	300m	6.0	20	30Δ	30Δ		10m	10m	1.0n	0.0	20		2.0m	50u%		6.0p#	2.5m	125J		R97b	
30	2N4304	300m	10	20	30Δ	30Δ		10m	15m	1.0n	0.0	20		1.0m	50u%		6.0p#	2.5m	125J		R97b	
31	2N4338	300m	1.0†	15Δ	50Δ	50		50m	.60m		0.0	15	.60m	1.8m	.50u	2.5k†	7.0p#	10m	200S		TO18	DBØ
32	2N4339	300m	1.8†	15Δ	50Δ	50		50m	1.5m	.10n	0.0	15	.80m	2.4m	15u	1.7k†	7.0p#	2.0m	200S		TO18	DBØ
33	2N4340	300m	3.0†	15Δ	50Δ	50		50m	3.6m	.10n	0.0	15	1.3m	3.0m	30u	1.5k†	7.0p#	2.0m	200S		TO18	DBØ
34	2N4341	300m	6.0†	15Δ	50Δ	50		50m	9.0m	.10n	0.0	15	2.0m	4.0m	60u	.80k†	7.0p#	2.0m	200S		TO18	DBØ
35	2N4351†	300m	5.0Δ	10*	25Δ	15	30m		3.0m	.01n						.30k†	5.0p#	1.7m	200S		TO72	DR
36	2N4416	300m	6.0†	15Δ	30	30		10m	15m	.10n	0.0	15	4.5m%	7.5m%	50u%		4.0p#	1.7m	200S	Ø	TO72	DHØ
37	2N4416A	300m	6.0†	15Δ	35	35		10m	15m	.10n	0.0	15	4.5m	7.5m	50u		4.0p#	1.7m	200S	Ø	TO72	DH
38	2N4867	300m	2.0†	20Δ	40	40	50m	50m	1.2m	.25n	0.0	20	.70m	2.0m	1.5u		25p#	1.7m	175S	Ø	TO72	DH
39	2N4867A	300m	2.0†	20	40	40	50m	50m	1.2m	.25n	0.0	20	.70m	2.0m	1.5u		25p#	1.7m	175S	#Ø	TO72	DH
40	2N4868	300m	3.0†	20Δ	40	40	50m	50m	3.0m	.25n	0.0	20	1.0m	3.0m	4.0u		25p#	1.7m	175S	Ø	TO72	DH
41	2N4868A	300m	3.0†	20	40	40	50m	50m	3.0m	.25n	0.0	20	1.0m	3.0m	4.0u		25p#	1.7m	175S	#Ø	TO72	DH
42	2N4869	300m	5.0†	20Δ	40	40	50m	50m	7.5m	.25n	0.0	20	1.3m	4.0m	10u		25p#	1.7m	175S	Ø	TO72	DH
43	2N4869A	300m	5.0†	20	40	40	50m	50m	7.5m	.25n	0.0	20	1.3m	4.0m	10u		25p#	1.7m	175S	#Ø	TO72	DH
44	2N5078	300m	8.0†	15Δ	30	30Δ	30m	10m	25m	.25n	0.0	15	4.5m	10m	150u		6.0p#	1.7m	200S	Ø	TO72	DGØ
45	2N5103	300m	4.0†	15Δ	25Δ	25	30m	10m	8.0m	100p	0.0	15	2.0m	8.0m	100u		1.0p#	1.7m	200S		TO72	DH
46	2N5104	300m	4.0†	15Δ	25Δ	25	30m	10m	6.0m	100p	0.0	15	3.5m	7.5m	100u		1.0p#	1.7m	200S		TO72	DH
47	2N5105	300m	4.0†	15Δ	25Δ	25	30m	10m	15m	100p	0.0	15	5.0m	10m	100u		1.0p#	1.7m	200S		TO72	DH
48	2N5358	300m	3.0†	15		40			1.0m	.10n	0.0	15	1.0m	3.0m	10u		6.0p#	2.0m	175J	Ø#	TO72	DJ
49	2N5359	300m	4.0†	15		40			1.6m	.10n	0.0	15	1.2m	3.6m	10u		6.0p#	2.0m	175J	Ø#	TO72	DJ
50	2N5360	300m	4.0†	15		40			3.0m	.10n	0.0	15	1.4m	4.2m	20u		6.0p#	2.0m	175J	Ø#	TO72	DJ
51	2N5361	300m	6.0†	15		40			5.0m	.10n	0.0	15	1.5m	4.5m	20u		6.0p#	2.0m	175J	Ø#	TO72	DJ
52	2N5362	300m	7.0†	15		40			8.0m	.10n	0.0	15	2.0m	5.5m	40u		6.0p#	2.0m	175J	Ø#	TO72	DJ
53	2N5363	300m	8.0†	15		40			14m	.10n	0.0	15	2.5m	6.0m	40u		6.0p#	2.0m	175J	Ø#	TO72	DJ
54	2N5364	300m	8.0†	15		40			18m	.10n	0.0	15	2.7m	6.5m	60u		6.0p#	2.0m	175J	Ø#	TO72	DJ
55	2N5391	300m	2.0†	20	70	70		10m	1.5m	.20n	0.0	20	1.5m	4.5m	4.0u		18p#	1.7m	200S	#Ø	TO18	DBØ
56	2N5392	300m	2.5†	20	70	70		10m	3.0m	.20n	0.0	20	2.0m	6.0m	7.0u		18p#	1.7m	200S	#Ø	TO18	DBØ
57	2N5393	300m	3.0†	20	70	70		10m	4.5m	.20n	0.0	20	3.0m	6.5m	10u		18p#	1.7m	200S	#Ø	TO18	DBØ
58	2N5394	300m	4.0†	20	70	70		10m	6.0m	.20n	0.0	20	4.0m	7.0m	15u		18p#	1.7m	200S	#Ø	TO18	DBØ
59	2N5395	300m	4.0†	20	70	70		10m	8.0m	.20n	0.0	20	4.5m	7.0m	20u		18p#	1.7m	200S	#Ø	TO18	DBØ
60	2N5396	300m	5.0†	20	70	70		10m	10m	.20n	0.0	20	4.5m	7.5m	25u		18p#	1.7m	200S	#Ø	TO18	DBØ
61	2N5397	300m	6.0†	10	25	25		10m	30mΔ%	.10n		10	6.0m	10m	200u		5p#	1.7m	200S	Ø#	TO72	DH
62	2N5398	300m	6.0†	10	25	25		10m	40mΔ%	.10n		10	5.5m	10m	400u		5.5p#	1.7m	200S	#	TO72	DH
63	2N5432†	300m	10†	5.0	25	25	400m	100m	150m%	200p						5.0	30p#	2.3m	150S	#	TO52	DJ
64	2N5433†	300m	9.0†	5.0	25	25	400m	100m	100m%	200p						7.0	30p#	2.3m	150S	#	TO52	DJ
65	2N5434†	300m	4.0†	5.0	25	25	400m	100m	30mΔ%	.20n						.01k	30p#	2.3m	150S	#	TO52	DJ
66	2N5556	300m	4.0†	15		30			2.5m	.10n	0.0	15	1.5m	6.5m	20u%		6.0p#	2.0m	200S	Ø#	TO72	DH
67	2N5557	300m	5.0†	15		30			5.0m	.10n	0.0	15	1.5m	6.5m	20u%		6.0p#	2.0m	200S	Ø#	TO72	DH
68	2N5558	300m	6.0†	15		30			10m	.10n	0.0	15	1.5m	6.5m	20u%		6.0p#	2.0m	200S	Ø#	TO72	DH
69	2N5592	300m	5.0†	20		50			10m	250p	0.0	20	2.0m	7.0m	10u		20p#	1.7m	200S	#*	TO72	DH
70	2N5593	300m	5.0†	20		50			10m	250p	0.0	20	2.0m	7.0m	10u		20p#	1.7m	200S	#*	TO72	DH
71	2N5594	300m	5.0†	20		50			10m	250p	0.0	20	2.0m	7.0m	10u		20p#	1.7m	200S	#*	TO72	DH
72♦	2N5647	300m	1.8†	15		50		10m	600u%	10p	.20Ø	15	300u	600u	5.0u%		3.0p	1.7m	150S	Ø#	TO72	DG
73♦	2N5648	300m	2.4†	15		50		10m	6.0m%	10p	.40Ø	15	400u	800u	7.0u%		3.0p	1.7m	150S	Ø#	TO72	DG
74♦	2N5649	300m	3.0†	15		50		10m	1.6m%	10p	.60Ø	15	450u	900u	10u%		3.0p	1.7m	150S	Ø#	TO72	DG
75#	2SK32	300m	4.0†	10Δ	35†	45	20m	10m	10m	.10n	0.0	10	3.0m		10u		10p#	2.4m	150J	PE	u45	DA
76	3G2	300m	3.0	20		50Δ			4.0m		0.0	20	1.0m	2mΔ			7.5p	1.7m	200J	PE	TO72	DH
77	3N124	300m	2.5†	15	50	50	20m	20m	2.0m	.25n	0.0	15	.50m	2.0m	2.0u	1.0k	14p	1.7m	200		TO72Δ	DV
78	3N125	300m	4.0†	15	50	50	20m	20m	4.5m	.25n	0.0	15	.80m	2.4m	10u	.75k	14p	1.7m	200		TO72Δ	DV
79	3N126	300m	6.5†	15	50	50	20m	20m	9.0m	.25n	0.0	15	1.2m	3.6m	20u	.50k	14p	1.7m	200		TO72Δ	DV
80#	4G2	300m	6.5	20		30Δ			16m		0.0	20	4.0m	5mΔ			7.5p	1.7m	200J	PE	TO72	DH
81#	5G2	300m	4.0	20		30Δ			8.0m		0.0	20	2.0m	3mΔ			7.5p	1.7m	200J	PE	TO72	DH
82#	6G2	300m	3.0	20		30Δ			4.0m		0.0	20	1.0m	2mΔ			7.5p	1.7m	200J	PE	TO72	DH
83	A190	300m	4.0†	15Δ	30	30	10m	5.0m	8.0m	.10n	0.0	15	2.0m	8.0m			5.0p#	1.0m	200S	#	TO72	DH
84♦	A192	300m	8.0†	15Δ	30	30Δ	20m	10m	20mΔ	500p	0.0	15	3.5m	6.5m	85u		5.0p	1.6m	200J	PE#Ø	TO72	DH
85♦	A193	300m	6.0†	15Δ	30	30Δ	20m	10m	10mΔ	500p	0.0	15	3.0m	6.5m	50u		5.0p	1.6m	200J	PE#Ø	TO72	DH
86#	BFS67	300m	6.0	15	50	50	50m	10m	10m	100p	0.0	15	1.5m	6.5m	20u		6.0p		150	PE	u34	
87#	BFS68	300m	8.0	15	30	30	50m	10m	25m	500p	0.0	15	3.5m	6.5m	35u		6.0p		150	PE	u34	
88#	BFW10	300m	8.0	15	30	30Δ	20m	10m	20mΔ	.50n	0.0	15			85u%		5.0p	1.7m	200	PE	TO72	DH
89#	BFW11	300m	6.0	15	30	30Δ	20m	10m	10mΔ	.50n	0.0	15			50u%		5.0p	1.7m	200	PE	TO72	DH
90#	BFW54	300m	6.0†	15	50	50		10m	10m	100p	0.0	15	3.0m	6.5m†	20u†		6.0p#	2.0m	200S	PEØ	TO18	
91#	BFW55	300m	6.0†	15	50	50		10m	10m	100p	0.0	15	3.0m	6.5m†	20u†		6.0p#	2.0m	200S	PEØ	TO18	
92#	BFW56	300m	6.0†	15	50	50		10m	10m	100p	0.0	15	3.0m	6.5m†	20u†		6.0p#	2.0m	200S	PEØ	TO18	
93#	BFW61	300m	8.0	15	25	25	20m	10m	20mΔ%	1.0n	0.0	15	2.0m%	6.5m%	85u%		6.0p	1.7m	200J	PE#	TO72	DH
94#	BSV38†	300mΔ	10†	15	25	25	150m	10m	50m#%	250p						25	18p#	2.4m	150S	PEØ	u51	G
95#	BSV39	300mΔ	6.0†	15	25	25	150m	10m	100m%	500p						70	18p#	2.4m	150S	PEØ	u51	G
96#	C80	300m	30	50			10m						.05m	.25m	1.0u				150J		R111	DB
97	CM600	300m	7.0	1.5Δ	3.0Δ	10Δ	100m	100m	50m*%	3.0n	0.0	10	10m†	30m		.06kΔ	6.5pt	2.3m	200J	E#	TO18	DD
98	CM601	300m	10	1.5Δ	3.0Δ	10Δ	100m	100m	50m%	3.0n	0.0	10	10m†	30m		60 Δ	6.5pt	2.3m	200J	E#	TO18	DD
99	CM602	300m	10	1.5Δ	2.0Δ	30Δ	100m	100m	70mΔ%	10n	0.0	10	10m†	30m		40 Δ	6.5pt	2.3m	200J	E#	TO18	DD
100	CM603	300m	1.5	1.5Δ	5.0Δ	15Δ	100m	100m	100mΔ%	3.0n	0.0	10	20m†	60m		30 Δ	6.5pt	2.3m	200J	E#	TO18	DD
101	CM640	300m	2.2	15Δ	20Δ	20Δ	100m	100m	500u#%	400p	0.0	10	5.0m†			250 %	5.0pt	2.3m	200J	EΔØ	TO18	DD
102	CM641	300m	2.2	15Δ	20Δ	20Δ	100m	100m	3.0m#%	400p	0.0	10	10m†	Δ		100 %	5.0pt	2.3m	200J	EΔØ	TO18	DD
103	CM642	300m	3.0	15Δ	20Δ	20Δ	100m	100m	10m#%	400p	0.0	10	20m†	Δ		50 %	5.0pt	2.3m	200J	EΔØ	TO18	DD
104	CM643	300m	5.0	15Δ	20Δ	20Δ	100m	100m	50m#%	400p	0.0	10	30m†	Δ		35 %	5.0pt	2.3m	200J	EΔØ	TO18	DD
105	CM644	300m	3.0	15Δ	30Δ	30Δ	100m	100m	10m#%	400p	0.0	10	20m†	Δ		50 %	5.0pt	2.3m	200J	EΔØ	TO18	DD
106	CM645	300m	5.0	15Δ	30Δ	30Δ	100m	100m	15m#%	400p	0.0	10	20m†	Δ		40 %	5.0pt	2.3m	200J	EΔØ	TO18	DD
107	CM646	300m	7.0	15Δ	30Δ	30Δ	100m	100m	30m#%	400p	0.0	10	30m†	Δ		30 %	5.0pt	2.3m	200J	EΔØ	TO18	DD
108	CM647	300m	10	15Δ	30Δ	30Δ	100m	100m	50mΔ%	400p	0.0	10	30m†	Δ		25 %	5.0pt	2.3m	200J	EΔØ	TO18	DD
109	FF409♦	300m	5.0	25Δ	30Δ	30Δ		50m	35m*%		5.0Ø	15	8.0m	25m		50 %	6.5pt	1.7m	200J	EΔ#	TO18	DB
110	FF600♦	300m	5.0	10Δ	15Δ	15Δ		50m	40m	3.0n	0.0	10	8.0m				35pt	1.7m	200J	EΔ#	TO72	DH

7. SILICON FIELD EFFECT TRANSISTORS - N CHANNEL

IN ORDER OF (1) DISSIPATION (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. DEVICE DISS @25°C (W)	MAX. Vp @ Id=0 (V)	MAX. Vp & Vds (V)	ABS MAX RATINGS@25°C BVdss (V)	BVgss (V)	Id (A)	Ig (A)	Id(ON)@ Vgs=0& Vds>Vp (A)	MAX. Igss@ Vgs>Vp &Vds=0 (A)	PARAMETERS @25°C TEST COND Vgs (V)	Vds (V)	COMMON SOURCE gfs (mhos) MIN	gfs (mhos) MAX	Yos mhos	Rds (Ω)	MAX. Cis (F)	DERATE IN FREE AIR W/°C	MAX TEMP (°C)	DESCRIPTION STRUC-TURE	DWG. No.	L C E O A D D E
1	FT0654A	300m	8.0†	20	50	50		50m	40mΔ	.10n	0.0	20	4.5m%	9m%	52u	.15k†	20p#	2.0m	175J	DPL	TO18	DBØ
2	FT0654B	300m	8.0†	20	50	50		50m	40mΔ	1.0n	0.0	20	4.5m%	9m%	52u	.15k†	20p#	2.0m	175J	DPL	TO18	DBØ
3	FT0654C	300m	4.0†	20	50	50		50m	12mΔ	.10n	0.0	20	3.5m%	8m%	27u	.22k†	20p#	2.0m	175J	DPL	TO18	DBØ
4	FT0654D	300m	4.0†	20	50	50		50m	12mΔ	1.0n	0.0	20	3.5m%	8m%	27u	.22k†	20p#	2.0m	175J	DPL	TO18	DBØ
5	FT0654E	300m	2.5†	20	50	50		50m	4.0mΔ	1.0n	0.0	20	2.0m%	6m%	24u	.30k†	20p#	2.0m	175J	DPL	TO18	DBØ
6	M100	300m	5.0	10	20								1.0m							Δ*	TO18	DA
7	M101	300m	8.0	10	20								1.5m							Δ*	TO18	DA
8▼	MD1F3458	300m	8.0†	20		50Δ		10m	15m	5.0n	0.0	20	2.5m	10m			18p#		150A	Δ	TO122	GP
9▼	MD1F3459	300m	4.0†	20		50Δ		10m	4.0m	5.0n	0.0	20	1.5m	6.0m	20u		18p#		150A	Δ	TO122	GP
10▼	MD1F3460	300m	2.0†	20		50Δ		10m	1.0m	5.0n	0.0	20	800u	4.5m	50u		18p#		150A	Δ	TO122	GP
11▼	MD1F3823	300m	8.0	15	30Δ	30Δ		10m	20n%	5.0n	0.0	15	3.2m%		35u*		6.0p#		150A		TO122	GP
12▼	MD1F4416	300m	6.0†	15		30Δ		10m	15m	500u	0.0	15	4.5m	7.5m†	50u		4.0p#		150A		TO122	GP
13	MFE2093	300m	2.5†	15	50	50	3.0m		.70m	.10n	0.0	15	.25m	.50m	1.5u	2.5k	6.0p	2.0m	175	Δ	TO72	DJ
14	MFE2094	300m	4.5†	15	50	50	3.0m		1.4m	100p	0.0	15	350u	700u	3.0u	1.6k	6.0p	2.0m	175	Δ	TO72	
15	MFE2095	300m	5.5†	15	50	50	3.0m		3.0m	100p	0.0	15	400u	800u	10u	1.3k	6.0p	2.0m	175	Δ	TO72	DJ
16	MFE3006	300m	3.0†	15$	25Δ	35	30m		18m	1.0n	4.0	15	8.0m%	18m%			6.0p#	1.7m	175J	*Ø	TO72	DX☑
17	MFE3007	300m	3.0†	15$	25	35	30m		20m	1.0n	4.0	15	10m%	18m%			5.5p#	1.7m	175J	*Ø	TO72	DX
18▼	MFE3008	300m	3.0†	15$	25	35	30m		20m	1.0n	4.0	15	8.0m	18m			6.0p#	1.7m	175J	*	TO72	DX
19	MMF1▼	300m	8.0†	15Δ	30	30	20m	10m	10m	.05n	0.0	15†	1.5m	6.5m	50u		6.0p#	2.0m	175J	#	X74	DH
20	MMF2▼	300m	8.0†	15Δ	30	30	20m	10m	10m	.05n	0.0	15†	1.5m	6.5m	50u		6.0p#	2.0m	175J	#	X74	DH
21	MMF3▼	300m	8.0†	15Δ	30	30	20m	10m	10m	.05n	0.0	15†	1.5m	6.5m	50u		6.0p#	2.0m	175J	#	X74	DH
22	MMF4▼	300m	8.0†	15Δ	30	30	20m	10m	10m	.05n	0.0	15†	1.5m	6.5m	50u		6.0p#	2.0m	175J	#	X74	DH
23	MMF5▼	300m	8.0†	15Δ	30	30	20m	10m	10m	.05n	0.0	15†	1.5m	6.5m	50u		6.0p#	2.0m	175J	#	X74	DH
24	MMF6▼	300m	8.0†	15Δ	30	30	20m	10m	10m	.05n	0.0	15†	1.5m	6.5m	50u		6.0p#	2.0m	175J	#	X74	DH
25#	PH241N♦	300m	1.0	0.0		30		10m	3.0m	200p	0.0	15	2.0m	7.0m			13p			PE	TO18	☑
26#	PH242N♦	300m	1.5	0.0		30		10m	6.0m	200p	0.0	15	3.5m	7.5m			13p			PE	TO18	☑
27#	PH243N♦	300m	2.5	0.0		30		10m	15m%	200p	0.0	15	5.0m	10m%			13p			PE	TO18	☑
28#	PH244N♦	300m	3.0	0.0		30		10m	30m%	200p	0.0	15	8.0m	15m%			13p			PE	TO18	☑
29	SI211N	300m	.50%	5.0		8.0Δ			150u	10n	0.0	5.0	200u	700u	300n	1.8k	10p	2.0m			TO18	
30	SI212N	300m	.70	5.0		8.0Δ			.30m	10n	0.0	5.0	.40m	1.1m	1.0u	1.5k	10p	2.0m			TO18	
31	SI213N	300m	1.0	5.0		8.0Δ			.60m	10n	0.0	5.0	.60m	1.5m	4.0u	1.3k	10p	2.0m			TO18	
32	SI214N	300m	1.5	5.0		8.0Δ			1.5m	10n	0.0	5.0	.90m	2.2m	12u	.90k	10p	2.0m			TO18	
33	SI215N	300m	2.5	5.0		8.0Δ			3.0m	10n	0.0	5.0	1.3m	3.0m	25u	.60k	10p	2.0m			TO18	
34	SI216N	300m	3.5	5.0		8.0Δ			6.0m	10n	0.0	5.0	1.8m	4.2m	50u	.30k	10p	2.0m			TO18	
35	SI221N	300m	.30	5.0		8.0Δ			.15m	2.0n	0.0	5.0	.40m	1.2m			30p	2.0m			TO72	DUØ
36	SI222N	300m	.50	5.0		8.0Δ			.30m	2.0n	0.0	5.0	.70m	1.8m			30p	2.0m			TO72	DUØ
37	SI223N	300m	.70	5.0		8.0Δ			.60m	2.0n	0.0	5.0	1.0m	2.4m			30p	2.0m			TO72	DUØ
38	SI224N	300m	1.0	5.0		8.0Δ			1.5m	2.0n	0.0	5.0	1.6m	3.6m			30p	2.0m			TO72	DUØ
39	SI225N	300m	1.5	5.0		8.0Δ			3.0m	2.0n	0.0	5.0	2.2m	5.0m			30p	2.0m			TO72	DUØ
40	SI226N	300m	2.5	5.0		8.0Δ			6.0m	2.0n	0.0	5.0	3.0m	7.0m			30p	2.0m			TO72	DUØ
41#	SI241N	300m	1.0	0.0		30		10m	3.0m	.20n	0.0	15	2.0m	7.0m			13p		200	PE	TO18	
42#	SI242N	300m	1.5	0.0		30		10m	6.0m	.20n	0.0	15	3.5m	7.5m			13p		200	PE	TO18	
43#	SI243N	300m	2.5	0.0		30		10m	15m%	.20n	0.0	15	5.0m	10m%			13p		200	PE	TO18	
44#	SI244N	300m	3.0	0.0		30		10m	30m%	.20n	0.0	15	8.0m	15m%		.10k	13p		200	PE	TO18	
45#	SI245N	300m	5.0	0.0		30		10m	35m%	.20n						.08k	13p		200	PE	TO18	
46#	SI246N	300m	10	0.0		30		10m	75m%	.20n						.06k	13p		200	PE	TO18	
47	SU2076▼	300m	3.0	10		50Δ			10u	250p	.70Ø	10†	1.5m		20u		18p	1.7m	200J	Ø	L21	
48	SU2077▼	300m	3.0	10		50Δ			10u	250p	.70Ø	10†	1.5m		20u		18p	1.7m	200J	Ø	L21	
49	SU2078▼	300m	4.0	10		50Δ			2.0m	.25n	.2Ø	10†	.30m		5.0u		7.0p	1.7m	200J		L21	
50	SU2079▼	300m	4.0	10		50Δ			2.0m	.25n	.2Ø	10†	.30m		5.0u		7.0p	1.7m	200J		L21	
51	SU2080▼	300m	4.0	10					10m	.50n	.2Ø	10†	1.5m		20u		7.0p	1.7m	200J		L21	
52	SU2081▼	300m	4.0	10					10m	.50n	.2Ø	10†	1.5m		20u		7.0p	1.7m	200J		L21	
53	TIS14	300m	6.0		30	30		10m	15m%	1.0n	0.0	15	1.0m	7.5m†	25u*		8.0p#	2.0m	175A	PE	TO38e	
54	TIS25	300m			50	50		10m	8.0mΔ	.25n			1.5m	6.0m	25u	.50k	8.0p	2.0m	200	PE	L21a	
55	TIS26	300m			50	50		10m	8.0mΔ	.25n			1.5m	6.0m	25u	.50k	8.0p	2.0m	200	PE	L21a	
56	TIS27	300m			50	50		10m	8.0mΔ	.25n			1.5m	6.0m	25u	.50k	8.0p	2.0m	200	PE	L21a	
57	TIXS80	300m	5.0†	10		30Δ		10m	25m%	10n	5Ø	10	5.0m	10m			.80pΔ	.50m	175J	PE$	TO72	DU
58	TIXS81	300m	10†	10		30Δ		10m	75m%	10n	15Ø	10	5.0m	10m			.80pΔ	.50m	175J	PE$	TO72	DU
59	U184	300m	8.0	15		25	1.0m	1.0m		1.0n	0.0	15	3.0m	8.5m	150u%		4.0p	1.7m	200	PE	TO72	
60	U197	300m	1.0	20		30		50m	1.0m%	500p	0.0	20	200u			4.0k	7.0p#	2.0m	200S	#	TO18	DDØ
61	U198	300m	1.0	20		30		50m	1.0m%	500p	0.0	20	200u			4.0k	7.0p#	2.0m	200S	#	TO18	DDØ
62	U199	300m	4.0	20		30		50m	6.0m%	500p	0.0	20	600u			1.5k	7.0p#	2.0m	200S	#	TO18	DDØ
63	U231▼	300m	4.5	20		50		50m	5.0m	100p	0.0	20	1.0m	3.0m	35u%		6.0p#	1.7m	200S	Ø#	L58	
64	U232▼	300m	4.5	20		50		50m	5.0m	100p	0.0	20	1.0m	3.0m	35u%		6.0p#	1.7m	200S	Ø#	L58	
65	U233▼	300m	4.5	20		50		50m	5.0m	100p	0.0	20	1.0m	3.0m	35u%		6.0p#	1.7m	200S	Ø#	L58	
66	U234▼	300m	4.5	20		50		50m	5.0m	100p	0.0	20	1.0m	3.0m	35u%		6.0p#	1.7m	200S	Ø#	L58	
67	U235▼	300m	4.5	20		50		50m	5.0m	100p	0.0	20	1.0m	3.0m	35u%		6.0p#	1.7m	200S	Ø#	L58	
68	U1277	300m	8.0	10		50Δ			8.0m	.10n	1.5Ø	10†	.45m		20u		6.0p%	1.7m	200J	DPL	TO72	DH
69	U1278	300m	4.5	10		50Δ			3.0m	.10n	.5Ø	10†	.35m		10u		6.0p%	1.7m	200J	DPL	RO38e	
70	U1279	300m	2.5	10		50Δ			1.5m	.10n	.2Ø	10†	.25m		5.0u		6.0p%	1.7m	200J	DPL	TO72	DH
71	U1280	300m	10	20		50Δ			10m	.10n	0.0	20	.25m				6.0p%	1.7m	200J	DPL	TO72	DH
72	U1281	300m	8.0	10		50Δ			8.0m	.50n	8Ø	10†	3.0m		30u†	.30k†	18p%	1.7m	200J	DPL	TO18	DBØ
73	U1282	300m	4.5	10		50Δ			20m	.50n	4Ø	10†	2.5m		30u		18p%	1.7m	200J	DPL	TO18	DBØ
74	U1283	300m	2.5	10		50Δ			10m	.50n	1Ø	10†	1.5m		15u		18p%	1.7m	200J	DPL	TO18	DBØ
75	U1284	300m	10	20		50Δ			40m	.50n	0.0	20	1.0m				18p%	1.7m	200J	DPL	TO18	DBØ
76	U1285	300m	8.0	20		30Δ			.10m#	5.0n	0.0	20	.20m	1.2m			20pΔ	1.7m	200J	DPL	TO72	DH
77	U1286	300m	8.0	20		30Δ			.20m#	10n	0.0	20	1.0m	10m			8.0pΔ	1.7m	200J	DPL	TO18	DBØ
78	U1325	300m	1.2	10		30Δ			.50m	.10n	.2Ø	10	.85m	1.2m			6.0p	1.7m	200J	PE☑	TO18	DH
79	U1714	300m	5.0†	10		25			5.0m	5.0p	0.0	10	400u				3.0p#	1.7m	200J		TO18	DBØ
80	U1837E	300m	8.0†	15	30	30	30m	10m	25mΔ	.25n	0.0	15	4.5m%	10m%	150u	.30k†	6.0p#	2.5m	125J	Ø	R97b	DB
81	U1897E†	300m	10†	20	40Δ	40Δ			30mΔ%	200p						30k†	16p#	2.5m	125J	Δ	R97b	DB
82	U1898E†	300m	7.0†	20	40Δ	40Δ			15mΔ%	200p						50k†	16p#	2.5m	125J	Δ	R97b	DB
83	U1899E†	300m	5.0†	20	40Δ	40Δ			8.0mΔ%	200p						80k†	16p#	2.5m	125J	Δ	R97b	DB
84	U1994E	300m	6.0†	15		30	30m		15m	.10n	0.0	15	4.5m	7.5m	50u%		4.0p#	2.5m	125J		R97b	DD
85	UC155	300m	10	20	30Δ	30	30m	10m	30m	.10n						.12k	4.0p	1.7m	200	PE	TO72	
86	UC241	300m†	5.0†	20		50Δ		50m	10mΔ	.25n	0.0	20	2.0m		10u		20p#	1.7m	200J	E#	TO72	DH
87	UC734	300m	8.0	15	30Δ	30		10m	20mΔ	5.0n	0.0	15	3.5m	6.5m	50u		4.0p#		200J	PL#	TO72	DH
88	UC734E	300m	8.0	15	30Δ	30		10m	20mΔ	5.0n	0.0	15	3.5m	6.5m	50u		4.0p#		200J	#†Ø	TO106	DB
89	2N5457	310m	6.0†	15		25			5mΔ%	1.0n	0.0	15	1.0m	5.0m†	50u*		7.0p#	2.8m	150S	Ø#	TO92	DD
90	2N5458	310m	7.0†	15		25			9mΔ%	1.0n	0.0	15	1.5m	5.5m†	50u*		7.0p#	2.8m	150S	Ø#	TO92	DD
91	2N5459	310m	8.0†	15		25			16mΔ%	1.0n	0.0	15	2.0m	6.0m†	50u*		7.0p#	2.8m	150S	Ø#	TO92	DD
92	2N5484	310m	3.0†			25		10m	5mΔ	1.0n	0.0	15	3.0m	6.0m	50u		5.0p#	2.8m	150S	Ø#	TO92	DD
93	2N5485	310m	4.0†			25		10m	10mΔ	1.0n	0.0	15	3.5m	7.0m	60u		5.0p#	2.8m	150S	Ø#	TO92	DD
94	2N5486	310m	7.5†			25		10m	20mΔ	1.0n	0.0	15	4.0m	8.0m	75u		5.0p#	2.8m	150S	Ø#	TO92	DD
95	2N5555†	310m	1.0†	0.0	25	25	40m		15m	1.0n						.15k%	5.0p#	2.8m	150S	#	TO92	DD
96▼	2N5638†	310m				30Δ			50mΔ	1.0n						30 %	10p#	2.8m	150S	#☑	TO92	DD
97▼	2N5639†	310m				30Δ			25mΔ	1.0n						60 %	10p#	2.8m	150S	#☑	TO92	DD
98▼	2N5640†	310m				30Δ			2.0mΔ	1.0n						100 %	10p#	2.8m	150S	#☑	TO92	DD
99▼	2N5653†	310m				30Δ			40mΔ	1.0n						50 %	10p#	2.8m	150S	#☑	TO92	DD
100▼	2N5654†	310m				30Δ			15mΔ	1.0n						100 %	10p#	2.8m	150S	#☑	TO92	DD
101	2N5668	310m	4.0†	15		25		10m	5.0m	2.0n	0.0	15	1.5m	6.5m	20u		7.0p#	2.8m	150S	#	TO92	DD
102	2N5669	310m	6.0†	15		25		10m	10m	2.0n	0.0	15	2.0m	6.5m	50u		7.0p#	2.8m	150S	#	TO92	DD
103	2N5670	310m	8.0†	15		25		10m	20m	2.0n	0.0	15	3.0m	7.5m	75u		7.0p#	2.8m	150S	#	TO92	DD
104	2N5564▼	325m	3.0†	15Δ	40	40	30		30m%	100p	2.0Ø	15	7.5m	12m	45u	100	12p#	2.2m	200S	Ø	L61a	
105	2N5565▼	325m	3.0†	15Δ	40	40	30		30m%	100p	2.0Ø	15	7.5m	12m	45u	100	12p#	2.2m	200S	Ø	L61a	
106	2N5566▼	325m	3.0†	15Δ	40	40	30		30m%	100p	2.0Ø	15	7.5m	12m	45u	100	12p#	2.2m	200S	Ø	L61a	
107♦	3N128	330m	8.0†	15Δ	20	8.0	50m		25m	50p		15	5.0m	12m			7.0p#	2.2m	175S	Ø	TO72	EC
108♦	3N142	330m	8.0†	20Δ	20	8.0	50m		25m	1.0n		15	5.0m%				10p#	2.2m	175S	Ø	TO72	DW
109♦	3N143	330m	8.0†	15Δ	20	8.0	50m		30m	1.0n		15	5.0m%				7.0p#	2.2m	175S		TO72	DW
110♦	3N152	330m	8.0†	15Δ	20	8.0	50m		30m	1.0n	5.0Ø	15	5.0m	12m%				2.2m	175S	Ø	TO72	DW

7. SILICON FIELD EFFECT TRANSISTORS - N CHANNEL

IN ORDER OF (1) DISSIPATION (2) TYPE No.

LINE No.	TYPE No.	MAX. DEVICE DISS @25°C (W)	MAX. Vp @ Id=0 (V)	MAX. & Vds (V)	ABS MAX RATINGS@25°C BVdss (V)	BVgss (V)	Id (A)	Ig (A)	MAX. Id(ON)@ Vgs=0& Vds>Vp (A)	MAX. Igss@ Vgs>Vp &Vds=0 (A)	TEST COND Vgs (V)	TEST COND Vds (V)	COMMON SOURCE gfs (mhos) MIN	COMMON SOURCE gfs (mhos) MAX	COMMON SOURCE Yos mhos	Rds (Ω)	MAX. Cis (F)	DERATE IN FREE AIR W/°C	DERATE MAX TEMP (°C)	DESCRIPTION STRUCTURE	DWG. No.	L C E O A D D E
1♦	3N154	330m	8.0†	15Δ	20	8.0	50m		25m	50p	5.0Ø	15	5.0m	12m%				2.2m	175S	Ø	TO72	DW
2	40673	330m	4.0†	15Δ	20	1.0	50m		35m	20n	4.0	15	12mΔ				6.0p#*	2.2m	175A	Ø*	TO72	DXØ
3	2N3069	350m	9.5	30		50Δ		100m	10m	1.0n	0.0	30	1.0m	2.5m	80u†		15p%	2.0m	200C		TO18	DBØ
4	2N3070	350m	4.5	30		50Δ		100m	2.5m	1.0n	0.0	30	750u	2.5m	30u†		15p%	2.0m	200C		TO18	DBØ
5	2N3071	350m	2.2	30		50Δ		100m	600u	1.0n	0.0	30	500u	2.5m	7.0u†		15p%	2.0m	200C		TO18	DBØ
6	2N3684	350m	4.5	20		50	7.5m	50m	7.5m	.10n	0.0	20	2.0m	3.0m	50u%		4.0p#	2.0m	200S	Ø	TO72	DH
7	2N3684A	350m	5.0†	20		50	7.5m	50m	7.5m	100p	0.0	20	2.0m	3.0m	5.0u		4.0p#	2.0m	200S	#*	TO72	DH
8#	C94	350m	5.0	10	25Δ	25Δ		50m	5.0m	10n		10	.50m	2.0m		100k	3pf*	2.0m	200A	Ø	TO18	DD
9#	C94A	350m	5.0	10	25Δ	25Δ		50m	5.0m	.50n		10	.50m	2.0m		100k	3pf*	2.0m	200A	Ø	TO18	DD
10	C95	350m	15	10	25Δ	25Δ		50m	7.0m	10n		10	.30m	1.5m		200k	3pf*	2.0m	200A	Ø	TO18	DD
11#	C95A	350m	15	10	25Δ	25Δ		50m	7.0m	1.0n		10	.30m	1.5m		200k	3pf*	2.0m	200A	Ø	TO18	DD
12	UC200	350m	6.0	20		50			30mΔ	.10n			6.0m			.15k	7.0p		200	E	TO72	DH
13	UC201	350m	8.0	20		50			15m	100p						130 †	7.0p#			PE	TO72	
14	UC210	350m	4.0	20		50			12mΔ	.10n			4.5m			.25k	7.0p		200	E	TO72	DH
15	UC220	350m	2.5	20		50			5.0mΔ	.10n	0.0	20	3.0m			.35k	7.0p		200J	EØ	TO72	DH
16	2N3819	360m	8.0†	15Δ	25	25		10m	20m%	2.0n	0.0	15	2.0m	6.5m	50u*		8.0p#	2.9m	150S	†	TO92	DA
17	2N4856†	360m	10†	15Δ	40	40		50m	50m%	#25n						.02k	18p#	2.4m	200S	☑	TO18	DBØ
18	JAN2N4856	360m	10	15	40	40		50m	50m%	#250p						30 †	18p#	2.4m	200S	☑	TO18	DBØ
19	2N4856A†	360m	10†	15Δ	40	40		50m	50m%	#250p						25 %	10 #	2.0m	200S	☑	TO18	DBØ
20	2N4857†	360m	6.0†	15Δ	40	40		50m	100m%	.25n						.04k	18p#	2.4m	200S	☑	TO18	DBØ
21	JAN2N4857	360m	6.0	15	40	40		50m	100m%	250p						40 †	18 #	2.4m	200S	☑	TO18	DBØ
22	2N4857A†	360m	6.0†	15Δ	40	40		50m	100m	250p						40 %	10 #	2.0m	200S	☑	TO18	DBØ
23	2N4858†	360m	4.0†	15Δ	40	40		50m	80m%	.25n						.06k	18p#	2.4m	200S	☑	TO18	DBØ
24	JAN2N4858	360m	4.0	15	40	40		50m	80m%	250p						60 †	18 #	2.4m	200S	☑	TO18	DBØ
25	2N4858A†	360m	4.0†	15Δ	40	40		50m	80m%	250p						60 %	10 #	2.0m	200S	☑	TO18	DBØ
26	2N4859†	360m	10†	15Δ	30	30		50m	50m%	#25n						.02k	18p#	2.4m	200S	☑	TO18	DBØ
27	JAN2N4859	360m	10	15	30	30		50m	50m%	#250p						30 †	18 #	2.4m	200S	☑	TO18	DBØ
28	2N4859A†	360m	10†	15Δ	30	30		50m	50m%	250p						25 %	10 #	2.0m	200S	☑	TO18	DBØ
29	2N4860†	360m	6.0†	15Δ	30	30		50m	100m%	.25n						.04k	18p#	2.4m	200S	☑	TO18	DBØ
30	JAN2N4860	360m	6.0	15	30	30		50m	100m%	250p						40 †	18 #	2.4m	200S	☑	TO18	DBØ
31	2N4860A†	360m	6.0†	15Δ	30	30		50m	100m	250p						40 %	10 #	2.0m	200S	☑	TO18	DBØ
32	2N4861†	360m	4.0†	15Δ	30	30		50m	80m%	.25n						.06k	18p#	2.4m	200S	☑	TO18	DBØ
33	JAN2N4861	360m	4.0	15	30	30		50m	80m%	250p						60 †	18 #	2.4m	200S	☑	TO18	DBØ
34	2N4861A†	360m	4.0†	15Δ	30	30		50m	80m%	250p						60 %	10 #	2.0m	200S	☑	TO18	DBØ
35	2N5245	360m	6.0†	15		30		50m	15mΔ%	1.0n	0.0	15	4.5m	7.5m	50u		4.5p#	2.9m	150S	#Ø	X55	DD
36	2N5246	360m	4.0†	15		30		50m	7mΔ%	1.0n	0.0	15	3.0m	6.0m	50u		4.5p#	2.9m	150S	#Ø	X55	DD
37	2N5247	360m	8.0†	15		30		50m	24mΔ%	1.0n	0.0	15	4.5m	8.0m	70u		4.5p#	2.9m	150S	#Ø	X55	DD
38	2N5248	360m	8.0†	15		30		10m	20m%	5.0n	0.0	15	3.5m	6.5m	50u		6.0p#	2.9m	150S	#	TO92	DA
39	2N5549	360m				40				250p			6.0m	15m		100 %	8.0p#☑	2.4m	200S	#	TO18	DH
40#	BF244	360m	8.0†	15	30	30		10m	25m	5.0n	0.0	15	3.0 %	6.5 %			4.0p*	2.9m	150S	PE	X55	
41#	BF245	360m	8.0†	15	30	30		10m	25m	5.0n	0.0	15	3.0 %	6.5 %			4.0p*	2.9m	150S	PE	TO92	
42#	BF246	360m	8.0†	15	25			10m	300m	5.0n	0.0	15	8.0 %	23 Δ			12p*	2.9m	150S	PE	X55	
43#	BF247	360m	8.0†	15	25			10m	300m	5.0n	0.0	15	8.0 %	23 Δ			12p*	2.9m	150S	PE	TO92	
44	LDF603	360m	4.0†	15	20Δ	20	30m	10m	1.0mΔ	500p	0.0	15	2.0m	8.0m	100u%		5.0p#	2.9m	150J	Ø	u34	DB
45	LDF604	360m	4.0†	15	20Δ	20	30m	10m	2.0mΔ	500p	0.0	15	3.5m	7.5m	100u%		5.0p#	2.9m	150J	Ø	u34	DB
46	LDF605	360m	4.0†	15	20Δ	20	30m	10m	5.0mΔ	500p	0.0	15	5.0m	10m	100u%		5.0p#	2.9m	150J	Ø	u34	DB
47	LDF691†	360m	10†	20Δ	30	30		50m		.50n	0.0	20				.03k	16p	2.9m	150J	☑	u34	DB
48	LDF692†	360m	5.0†	20Δ	30	30		50m		.50n	0.0	20				.06k	16p	2.9m	150J	☑	u34	DB
49#	NKT80211	360m	.50	5.0		10		10m	.15m	10n	0.0	5.0	.20m	.70m		.40k	23p	1.8m	200	#	TO18	DB
50#	NKT80212	360m	.70	5.0		10		10m	.30m	10n	0.0	5.0	.40m	1.1m		.40k	23p	1.8m	200	#	TO18	DB
51#	NKT80213	360m	1.0	5.0		10		10m	.60m	10n	0.0	5.0	.60m	1.5m		.40k	23p	1.8m	200	#	TO18	DB
52#	NKT80214	360m	1.5	5.0		10		10m	1.5m	10n	0.0	5.0	.90m	2.2m		.40k	23p	1.8m	200	#	TO18	DB
53#	NKT80215	360m	2.5	5.0		10		10m	3.0m	10n	0.0	5.0	1.3m	3.0m		.40k	23p	1.8m	200	#	TO18	DB
54#	NKT80216	360m	3.5	5.0		10		10m	6.0m	10n	0.0	5.0	1.8m	4.2m		.40k	23p	1.8m	200	#	TO18	DB
55	NPC211N	360m	.50%	5.0	5.0	8.0Δ	200u	90u	150u	10n	0.0	5.0	200m	700m			25p		200J		TO18	DBØ
56	NPC212N	360m	.70%	5.0	5.0	8.0Δ	200u	180u	300u	10n	0.0	5.0	400m	1.1			25p		200J		TO18	DBØ
57	NPC213N	360m	1.0%	5.0	5.0	8.0Δ	200u	400u	600u	10n	0.0	5.0	600m	1.5			25p		200J		TO18	DBØ
58	NPC214N	360m	1.5%	5.0	5.0	8.0Δ	200u	900u	1.5m	10n	0.0	5.0	900m	2.2			25p		200J		TO18	DBØ
59	NPC215N	360m	2.5%	5.0	5.0	8.0Δ	200u	1.8m	3.0m	10n	0.0	5.0	1.3	3.0			25p		200J		TO18	DBØ
60	NPC216N	360m	3.5%	5.0	5.0	8.0Δ	200u	4.0m	6.0m	10n	0.0	5.0	1.8	4.2			25p		200J		TO18	DBØ
61	TIS34	360m	8.0	15	30	30		10m	20mΔ	5.0n	0.0	15	3.5m	6.5m	50u		6.0p	2.9m	150J	PE	TO92	
62	TIS41	360m			30	30		50m	50m%Δ	20						25 †	18p#	2.4m	200S	PE	TO18	
63	TIS42	360m			25	25		10m	10m%Δ	5.0						70 †		2.9m	150J	PE	TO92	
64	TIS58	360m	5.0	15Δ	25	25		10m	8.0m	4.0n	2Ø	15	1.3m	4.0m	20u		6.0p#	2.9m	150J	PE	TO92	
65	TIS59	360m	9.0	15Δ	25	25		10m	25m	4.0n	5Ø	15	2.3m	5.0m	50u		6.0p#	2.9m	150J	PE	TO92	
66	TIS68▼	360m	5.0†	15		25Δ		30m	8.0m	2.0n	0.0	15	1.0m	6.0m	35u%		8.0p#	.35m	150S	PE	TO92	
67	TIS69▼	360m	5.0†	15		25Δ		30m	8.0m	2.0n	0.0	15	1.0m	6.0m	35u%		8.0p#	.35m	150S	PE	TO92	
68	TIS70▼	360m	5.0†	15		25Δ		30m	8.0m	2.0n	0.0	15	1.0m	6.0m	35u%		8.0p#	350u	150S	PE	TO92	
69	TIS73†	360m	10†	15	30Δ	30Δ		50m	50m%	#2.0n						5.0 %	18p#	350u	150S	PE	X55	DB
70	TIS74†	360m	6.0†	15	30Δ	30Δ		50m	20m%	#2.0n						.04k%	18p#	.35m	150S	PE	X55	DB
71	TIS75†	360m	4.0†	15	30Δ	30Δ		50m	8m%	#2.0n						.06k%	18p#	.35m	150S	PE	X55	DB
72	TIS78	360m	10†	30		300Δ		10m	10m%	2.0n	0.0	30	750u	3.0m†	100u*	1.5k%	15p#	2.0m	150J	P	X55	DB
73	TIS79	360m	12†	30		200Δ		10m	10m%	2.0n	0.0	30	750u	3.0m†	100u*	2.0k%	18p#	2.0m	150J	P	X55	DB
74	TIS88	360m	6.0†	15	30†	30		50m	15m%	1.0n	0.0	15	4.5m	7.5m	50u		4.5p#	2.9m	150J	PE†	X55	DD
75	TIXS78	360m	10†	30		300Δ		10m	10m%	2.0n	0.0	30	.75m	3.0m	100u%	1.5k%	3.0pΔ	.35m	150J	P†	X55	DB
76	TIXS79	360m	12†	30		200Δ		10m	10m%	2.0n	0.0	30	.75m	3.0m	100u%	2.0k%	3.0pΔ	.35m	150J	P†	X55	DB
77	UC588	360m	6.0†	15		30		10m	15mΔ	1.0n	0.0	15	4.5m	7.5m	50u		4.0p	2.8m	200	†Ø	TO106	DD
78	40468A	375m		Δ	20	1.0	25m		25m%Δ	1.0n		15		7.5mΔ			10p#	2.5m	175J	*Ø	TO72	DW
79	40559A	375m		Δ	20	1.0	25m		25m%Δ	1.0n							5.5p#*	2.5m	175J	*	TO72	DW
80	FT57	375m		Δ	15Δ	25Δ			26m		0.0	12	6.0m%	9.0mΔ			2.7p#*	2.5m	175J	DPE*Ø	TO72	DS
81	G125F*	375m	5.0	10	40	40		50m		.10n						.50k	2.0pΔ	3.0m	150S	#	L49a	
82	G126F*	375m	10	10	40	40		50m		.10n						.25k	2.0pΔ	3.0m	150S	#	L49a	
83	G127F*	375m	5.0	10	40	40		50m		.20n						.09k	7.0pΔ	3.0m	150S	#	L49a	
84	G128F*	375m	10	10	40	40		50m		.20n						.04k	7.0pΔ	3.0m	150S	#	L49a	
85	G129F*	375m	5.0	10	40	40		50m		.10n						.50k	2.0pΔ	3.0m	150S	#	L49b	
86	G130F*	375m	10	10	40	40		50m		.10n						.25k	2.0pΔ	3.0m	150S	#	L49b	
87	G131F*	375m	5.0	10	40	40		50m		.20n						.09k	7.0pΔ	3.0m	150S	#	L49b	
88	G132F*	375m	10	10	40	40		50m		.20n						.04k	7.0pΔ	3.0m	150S	#	L49b	
89	2N3084	400m	10†	15	30	15		50m	3.0m	.10n	1.0	15	.40m	2.0m	50u%		14p	2.3m	200C		R82	
90	2N3085	400m	10†	15	30	15		50m	3.0m	.10n	1.0	15	.40m	2.0m	50u%		14p	2.3m	200C		TO18	DD
91	2N3086	400m	10†	15	40	15		50m	3.0m	1.0n	1.0	15	.40m	2.0m	50u%		14p	2.3m	200C		R82	
92	2N3087	400m	10†	15	40	15		50m	3.0m	1.0n	1.0	15	.40m	2.0m	50u%		14p	2.3m	200C		TO18	DD
93	2N3088	400m	5.0†	15	15	10		50m	2.0m	1.0n	1.0	15	.30m	2.0m	50u%		14p	2.3m	200C		R82	
94	2N3088A	400m	5.0†	15	15	10		50m	2.0mΔ	1.0n	1.0	15	.30m	2.0m	50u		14p#	2.3m	200C		R82	
95	2N3089	400m	5.0†	15	15	10		50m	2.0m	1.0n	1.0	15	.30m	2.0m	50u%		14p	2.3m	200C		TO18	DD
96	2N3089A	400m	5.0†	15	15	10		50m	2.0mΔ	1.0n	1.0	15	.30m	2.0m	50u		14p#	2.3m	200C		TO18	DD
97	2N3465	400m	10†	15	40	40Δ		50m	5.0m	1.0n	0.0	15	.40m	1.2m	10u%		15p†	2.3m	200C		R82	
98	2N3466	400m	10†	15	40	40Δ		50m	5.0m	1.0n	0.0	15	.40m	1.2m	10u%		15p†	2.3m	200C		TO18	DD
99	2N4445†	400m	10	5.0Δ	25	25	400m	100m	150m%	3.0n						5.0 †	70p#	2.3m	200S		TO46	DDØ
100	2N4446†	400m	10	5.0Δ	25	25	400m	100m	100m%	3.0n						.01k†	70p#	2.3m	200S		TO46	DDØ
101	2N4447†	400m	10	5.0Δ	20	20	400m	100m	150m%	3.0n						6.0 †	70p#	2.3m	200S		TO46	DDØ
102	2N4448†	400m	10	5.0Δ	20	20	400m	100m	100m%	3.0n						.01k†	70p#	2.3m	200S		TO46	DDØ
103	2N5158†	400m	8.0	5.0Δ	40	40	400m	100m	100m%	1.0n							50p#	2.3m	200S	☑	TO46	DJØ
104	2N5159†	400m	10	5.0Δ	40	40	400m	100m	100m%	1.0n							50p#	2.3m	200S	☑	TO46	DJØ
105	3N140	400m	4.0†	16Δ	20	4.0	50m		30m	1.0n	4.0	14	6.0m	18m			7.0p#	2.7m	175A	$Ø	TO72	DX
106	3N141	400m	4.0†	16Δ	20	4.0	50m		30m	1.0n	4.0	14	6.0m	18m			7.0p#	2.7m	175A	$	TO72	DX
107	3N153	400m		Δ	20	8.0	50m		5.0m	50p						300 %	8.0p#	2.6m	175S		TO72	DW
108	3N159	400m	4.0†	16Δ	20	8.0	50m		30mΔ	1.0n	0.0	14	7.0m	18m			7.0p#	2.6m	175C	*Ø	TO72	DX
109	40467A	400m	8.0†	12Δ	20	1.0	50m		50m%Δ	1.0n		15	4.0m	7.5 Δ		200 †		2.6m	175A	*Ø	TO72	DW
110	40600	400m	2.0†	15Δ	20	8.0	50m		18m*	1.0n	4.0	13	10mΔ				5.5p#	2.7m	175A	*Ø	TO72	DX

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

7. SILICON FIELD EFFECT TRANSISTORS - N CHANNEL

IN ORDER OF (1) DISSIPATION (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. DEVICE DISS @25°C (W)	MAX. Vp @ Id=0 (V)	MAX. Vp & Vds (V)	ABS MAX RATINGS@25°C BVdss (V)	BVgss (V)	Id (A)	Ig (A)	MAX. Id(ON)@ Vgs=0& Vds>Vp (A)	MAX. Igss@ Vgs>Vp &Vds=0 (A)	PARAMETERS @25°C TEST COND Vgs (V)	Vds (V)	COMMON SOURCE gfs (mhos) MIN	gfs (mhos) MAX	Yos mhos	Rds (Ω)	MAX. Cis (F)	DERATE IN FREE AIR W/°C	MAX TEMP (°C)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CONFIG
1	40601	400m	2.0†	15Δ	20	8.0	50m		18m*	1.0n	4.0	13	10mΔ				5.5p#	2.7m	175A	*	TO72	DX
2	40602	400m	2.0†	15Δ	20	8.0	50m		18m*	1.0n	4.0	13	10mΔ				5.5p#	2.7m	175A	*	TO72	DX
3	40603	400m	2.0†	15Δ	20	8.0	50m		18m*	1.0n	4.0	13	10mΔ				5.5p#	2.7m	175A	*Ø	TO72	DX
4	40604	400m	2.0†	15Δ	20	8.0	50m		18m*	1.0n	4.0	13	2.8mΔ				5.5p#	2.7m	175A	*	TO72	DX
5	C81	400m	18	50			10m						.04m	.20m	.50u				150J		R111 a	
6	C413N	400m	3.0	5.0Δ	15Δ	15Δ		50m	10m#	3.0n		5.0	25m	40mΔ	50u		80p*	2.3m	200J	E#	R135	DDØ
7	C673	400m	10	15	40Δ	40Δ		50m	6.0m	10nΔ	0.0	15	1.0m	2.5m	20u		5.0p†	2.3m	200J	E	TO5	DD
8	C674	400m	10	15	40Δ	40Δ		50m	6.0m	10nΔ	0.0	15	1.0m	2.5m	20u		5.0p†	2.3m	200J	E	TO18	DD
9	CM697†	400m	3.0	5.0	25	25	400m	100m		3.0n						.01k%		2.3m	200J	E#	R135	DDØ
10▼	MD1F3066	400m	10	30		50Δ		100m	4.0m	5.0n	0.0	30	400u	1.0m	50u		10p#		150A		TO122	GP
11▼	MD1F3067	400m	50	30		50Δ		100m	1.0m	5.0n	0.0	30	300u	1.0m	20		10p#		150A		TO122	GP
12▼	MD1F3068	400m	2.5	30		50Δ		100m	250u	5.0n	0.0	30	200u	1.0m	5.0u		10p#		150A		TO122	GP
13▼	MD1F3069	400m	10	30		50Δ		100m	10mΔ	5.0n	0.0	30	1.0m	2.5m	80u		15p#		150A		TO122	GP
14▼	MD1F3070	400m	5.0	30		50Δ		100m	2.5mΔ	5.0n	0.0	30	750u	2.5m	30u		15p#		150A		TO122	GP
15▼	MD1F3071	400m	2.5	30		50Δ		100m	600uΔ	5.0n	0.0	30	500u	2.5m	7.0u		15p#		150A		TO122	GP
16	PFN3066*	400m	8.0	30		50			4.0mΔ	1.0n	0.0	30	400u	1.0m			2.0pØ	2.3m	200J	E	TO18	Ø
17	PFN3069*	400m	8.0	30		50			10mΔ	1.0n	0.0	30	1.0m	2.5m			3.0pØ	2.3m	200J	E	TO18	Ø
18	PFN3458*	400m	8.0	30		50			15mΔ	1.0n	0.0	30	2.5m	10m			5.0pØ	2.3m	200J	E	TO18	Ø
19	U240†	400m	10	5.0		25	400m	100m	150m%	3.0n						5.0	70p#	2.3m	200S	ΔØ	TO52	DBØ
20	U241†	400m	10	5.0		25	400m	100m	100m%	3.0n						10	70p#	2.3m	200S	ΔØ	TO52	DBØ
21	U242†	400m	10	5.0		20	400m	100m	150m%	3.0n						6.0	70p#	2.3m	200S	ΔØ	TO52	DBØ
22	U243†	400m	10	5.0		20	400m	100m	100m%	3.0m						12	70p#	2.3m	200S	ΔØ	TO52	DBØ
23	2N5543	500m	15†	30		75			10m%	1.0u	0.0	30	750u	3.0m†	100u*	2.0k%	10p#	3.3m	200S	#	TO39	DBØ
24	2N5544	500m				30			10m%	1.0u	0.0	30	750u	3.0m†	100u*	2.0k%	10p#	3.3m	200S	#	TO39	DBØ
25	CF2386	500m	8.0	12		20Δ		10m	9.0m	10n	0.0	10	1.0m				50p	2.3m	200J	E	TO5	A
26▼	MD1F4391	500m	10	20		40Δ		50m	150m%	5.0n						30 †	14p#		150A	ØΔ	TO122	GP
27▼	MD1F4392	500m	5.0	20		40Δ		50m	75m%	5.0n						60 †	14p#		150A	ØΔ	TO122	GP
28▼	MD1F4393	500m	3.0	20		40Δ		50m	30m%	5.0n						100 †	14p#		150A	ØΔ	TO122	GP
29	U253▼	500m	5.0	10		25		50m		100n	5Ø	10	5.0m	10m	100u		5.0p	3.9m	150		TO78	
30▼	U257	500m	5.0	10		25	50		40m	100p		10	5.0m	10m	100u			7.7m	150	§		
31	UC250	500m	10	20		30			150m%	1.0n	0.0	20	20mt			.03kt	25p			PL	TO18	DB
32	UC2139	500m	6.0	15		30			6.0m	.20n										PE	L21b	
33	UC2149	500m	6.0	20		30			15m	.20n										PE	L21b	
34	2N4881	800m	15†	50Δ	300	100		10m	2.0m	2.0n	0.0	50	.35m%	1m%	10u%	5.0kt	15p#	4.6m	200S	Ø	TO5	DBØ
35	2N4882	800m	15†	50Δ	300	100		10m	7.5m	2.0n	0.0	50	.60m%	1.5m%	20u%	3.0kt	15p#	4.6m	200S	Ø	TO5	DBØ
36	2N4883	800m	10†	50Δ	200	100		10m	2.0m	1.0n	0.0	50	.35m%	1m%	10u%	5.0kt	15p#	4.6m	200S	Ø	TO5	DBØ
37	2N4884	800m	10†	50Δ	200	100		10m	7.5m	1.0n	0.0	50	.60m%	1.5m%	20u%	3.0kt	15p#	4.6m	200S	Ø	TO5	DBØ
38	2N4885	800m	10†	50Δ	125	75		10m	2.0m	1.0n	0.0	50	.35m%	1m%	10u%	5.0kt	15p#	4.6m	200S	Ø	TO5	DBØ
39	2N4886	800m	10†	50Δ	125	75		10m	7.5m	1.0n	0.0	50	.60m%	1.5m%	20u%	3.0kt	15p#	4.6m	200S	Ø	TO5	DBØ
40	2N5277	800m	7.0†	30		150		10m	12.m	5.0n	0.0	30	2.0m	5.0m	25u		25p#	4.6m	200S	Ø#	TO5	DBØ
41	2N5278	800m	10†	30		150		10m	25m	5.0n	0.0	30	3.0m	6.0m	60u		25p#	4.6m	200S	Ø#	TO5	DBØ
42▼	3N169†	800m	1.5Δ	10*	25	35Δ	30m		10n	10p						200	5.0p#	4.5m	200S		TO72	DRØ
43▼	3N170†	800m	2.0Δ	10*	25	35Δ	30m		10n	10p						200	5.0p#	4.5m	200S		TO72	DRØ
44▼	3N171†	800m	3.0Δ	10*	25	35Δ	30m		10n	10p						200	5.0p#	4.5m	200S		TO72	DRØ
45	U221	800m	8.0	20		50		25m	110m	1.0n	0.0	20	15m	40m			25p#	4.6m	200J		TO5	DBØ
46	U222	800m	10	20		50		25m	250m	1.0n	0.0	20	20m	20m	50u		25p#	4.6m	200J		TO5	DBØ
47	U1715	800m	15†	50		200			50m	5.0n						.40kt	25p#	4.5m	200J	Ø	TO5	DBØ
48	MFE2097	1.5	7.0†	15	50	50		10m	100m	1.0n	0.0	15	10mt	20m	200u%		20p	10m	175J	Δ	R34a	
49	MFE2098	1.5	10†	15	50	50		10m	100m	1.0n	0.0	15	14mt	25m	400u%		20p	10m	175J	Δ	R34a	
50	MFE2133	1.5			30	30Δ		10m	25m#		0.0	10	12mt			60 †	20p	10m	175J	Δ	R34a	
51	2N3970†	1.8	10	20Δ	40	40		50m	150m							30kt	25p#	10m	200S		TO18	Ø
52	2N3971†	1.8	5.0	20Δ	40	40		50m	75m							60kt	25p#	10m	200S		TO18	DBØ
53	2N3972†	1.8	3.0	20Δ	40	40		50m	30m							100kt	25p#	10m	200S		TO18	DBØ
54	2N4091	1.8	10	20Δ	40	40Δ		10m	30m%								16p#	10m	200S		TO18	DBØ
55	2N4091At	1.8	10†	20Δ	50	50		10m	30m%	40p						30	16p#	10m	200S	Ø	TO18	DBØ
56	2N4092	1.8	7.0	20Δ	40	40Δ		10m	15m%								16p#	10m	200S		TO18	DBØ
57	2N4092At	1.8	7.0†	20Δ	50	50		10m	15m%	40p						50	16p#	10m	200S	Ø	TO18	DBØ
58	2N4093	1.8	5.0	20Δ	40	40Δ		10m	8.0m%								16p#	10m	200S		TO18	DBØ
59	2N4093At	1.8	5.0†	20Δ	50	50		10m	8.0m%	40p						80	16p#	10m	200S	Ø	TO18	DBØ
60	2N4094†	1.8			40Δ	40		10m	75m%#							.02k%	32p#	10m	200C		TO18	DBØ
61	2N4095†	1.8			40Δ	40		10m	20m%#							.04k%	32p#	10m	200C		TO18	DBØ
62	2N4391†	1.8 Δ	10	20Δ	40	40		50m	150m%	.10n						.03kt	14p#		200S	Ø	TO18	DBØ
63	2N4392†	1.8 Δ	5.0	20Δ	40	40		50m	75m%	.10n						.06kt	14p#		200S	Ø	TO18	DBØ
64	2N4393†	1.8 Δ	3.0	20Δ	40	40		50m	30m%	.10n						.10kt	14p#		200S	Ø	TO18	DBØ
65	2N4977†	1.8 Δ	10†	15Δ	30	30		10m	50m	500p						15 †	35p#	10m	200S		TO18	DBØ
66	2N4978†	1.8 Δ	80†	15Δ	30	30		10m	15m	500p						20 †	35p#	10m	200S		TO18	DBØ
67	2N4979†	1.8 Δ	5.0†	15Δ	30	30		10m	7.5m	500p						40 †	35p#	10m	200S		TO18	DBØ
68	U200	1.8	3.0	20		30		50m	25m	1.0n						.15k	30p#	10m	200S	#ØΔ	TO18	DDØ
69	U201	1.8	5.0	20		30		50m	75m	1.0n						.07k	30p#	10m	200S	#ØΔ	TO18	DDØ
70	U202	1.8	10	20		30		50m	150m	1.0n						.05k	30p#	10m	200S	#ØΔ	TO18	DDØ
71	CP600	3.6 Δ	8.0	5.0	20Δ	20Δ		10m	180m%	50n	0.0	15	10m	30m		60kΔ	35p†	52m	200J	E	TO59	DDØ
72	CP601	5.4 Δ	8.0	5.0Δ	30Δ	30Δ		10m	180m%	50n	0.0	15	10m	30m		.06kΔ	35p†	.03m	200J	E#	TO59	DDØ
73	CP602	6.0 Δ	15	5.0Δ	20Δ	20Δ		10m	300mΔ	50n	0.0	15	20m	60m		.04kΔ	35p†	.03m	200J	E#	TO59	DDØ
74	CP650	8.0 Δ	10	5.0Δ	25Δ	25Δ	1.2		1.2 %	10n	0.0	15	100mt	250m		4.0	25p†	20u	200J	E	TO5	DDØ
75	CP651	8.0 Δ	10	5.0Δ	20Δ	20Δ	600m		500m%	10n	0.0	15	75m	200mt		7.0	25p†	20u	200J	E#	TO5	DDØ
76	CP652	8.0 Δ	10	5.0Δ	20Δ	20Δ	600m		100m#%	3.0n	0.0	15	100mΔ	†		4.0	25p†	20u	200J	E#	TO5	DDØ
77	CP653	8.0 Δ	10	5.0Δ	20Δ	20Δ	600m		60m#%	3.0n	0.0	15	60mΔ	†		7.0	25p†	20u	200J	E#	TO5	DDØ
78	CP603	9.0 Δ	15	5.0Δ	30Δ	30Δ		10m	300mΔ	50n	0.0	15	20m	60m		.04kΔ	35p†	.02m	200J	E#	TO59	DDØ
79	U244	10 Δ	8.0	10		25	900m		900m%	1.0n	0.0	10	80m	200mt			35p#	57m	200J	D	TO60	DB
80	FF102♦	75	6.0	10Δ	15Δ	15Δ		50m	5.0m	1.0n	0.0	10	800u				8.0p†	1.7m	200J	EΔ#	TO72	DH
81	TIXS35	500	5.0	10Δ	30	30		10m	10m%Δ	10n	10Ø	10	10m	20m	200u	50 †	12p#	3.3m	175	PE$	TO12	DG
82	TIXS36	500	10	10Δ	30	30		10m	200m%Δ	10n	40Ø	10	10m	20m	400u	50kt	12p#	3.3m	175	PE$	TO12	DG
83	U252▼	500	5.0	10		25		50m		100n	5.0Ø	10	5.0m	10m	100u		5.0p	3.9m	150		TO78	
84	UC251	500	6.0	20		30			75m%	1.0n	0.0	20	12mt	%		75 †	25p			PL	TO18	DB

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	2SA416†		6.0 #	ØJ	700m	50m	70	1.5	60	600uØ	10Ø	600m	40	100	90M§		200n	AD	TO3	
2#	2SB282†		30 Ø	#J	6.0	1.0	80	40	60	100uØ	1.0Ø	6.0	15	30	250kt		15u	A	TO3	
3#	2SB283†		30 Ø	#J	6.0	1.0	60	20	48	100uØ	1.0Ø	6.0	35	80	250kt		15u	A	TO3	
4#	2SB284†		30 Ø	#J	6.0	1.0	60	20	48	100uØ	1.0Ø	6.0	20	45	250kt		15u	A	TO3	
5#	2SB285†		30 Ø	#J	6.0	1.0	80	40	60	100uØ	1.0Ø	6.0	20	65	250kt		15u	A	TO3	
6#	2SB337		12 Ø		7.0	1.0	40	10	30 §	1.0m	2.0Ø	1.0	50	165	300kt			A	TO3	
7#	2SB361		12 Ø		5.0	1.0	80	1.0	80	.10m	2.0Ø	1.0 Ø	50	280	50k			D	TO3	
8#	2SB367		4.0 Ø		1.0		25	12	25 Ø	100m	1.5Ø	.50	45	170	500kt			A	TO66	
9#	2SB367H		4.0 Ø		1.0	.30	30	12	25	70m	1.5Ø	.50	50	80	500kt			A	TO66	
10#	2SB368		4.0 Ø		1.0		45	12	45 Ø	100m	1.5Ø	.50	45	170	500kt			A	TO66	
11#	2SB368H		4.0 Ø		1.0	.30	45	12	35	70m	1.5Ø	.50	50	80	500kt			A	TO66	
12#	2SB468		10 Ø		10 Ø	10	200	1.5	90		1.5Ø	4.0	14	130			2.5u#Ø	D	TO3	
13#	2SB471		12 Ø		10	3.0	60	10	45	.50m	2.0Ø	1.0	50	165	300kt			A	TO3	
14#	2SB472		12 Ø		10	3.0	60	10	45	.50m	2.0Ø	1.0	50	165	300kt			A	TO3	
15	JAN2N2079A†	.0	150	#S	15 Ø	4.0	80	40	65	4.0m	2.0Ø	5.0	35	70	5.0kΔ	60m			TO36	CØ
16	JAN2N2557	14m	1.1 Ø	#J	15	5.0	60	20	40	70uØ	.50Ø	1.0	20	60		250m			MT28	AØ
17	JAN2N2559	14m	1.1 Ø	#J			100	20	60	70uØ	.50Ø	1.0	20	60		250m			MT28	AØ
18#	AC176K	22m	1.1	ØJ	1.0	500m	32	10	18	50uØ	0.0	300m	50	100 Ø	3.0M§				X9a	
19	2N4106	25m	1.6 Ø	#S	1.0		25	10		25uØ	10	5.0mΔ	70	350					TO1	A
20#	AC193	25mØ	1.0 #	#C	1.0		25	10	25 Ø	14uØ		400mΔ	200 Ø		3.0M§			A	TO1	
21#	AC193K	25mØ	1.0 #	#C	1.0		25	10	25 Ø	14uØ		400mΔ	200 Ø		3.0M§			A	TO1	
22#	2SB325	30mØ	1.8	#J	600m	600mØ	120	50	100 §	20uØ	2.0Ø	50m	20	250				AΔ	R57	
23#	AC180K	33m	2.5 Ø	#J	1.0		32	10	24 §	20uØ	1.0Ø	600m	50	250	1.0M§Δ			A*	X9b	
24#	2SB16A	40mØ	1.8 Ø	ØJ	600m		20			20uØ	2.0Ø	50m	20	50 Ø				A	R57	
25#	2SB17A	40mØ	1.8 Ø	ØJ	600m		40			20uØ	2.0Ø	50m	20	50 Ø				A	R57	
26#	2SB18A	40mØ	1.8 Ø	ØJ	600m		80			20uØ	2.0Ø	50m	20	50 Ø				A	R57	
27	2N2564/5	66m	5.0 Ø	#J	3.0	1.0	40	10	30	650u	1.0	3.0	20	60	7.0k	250m		A	TO5	AØ
28	2N2565/5	66m	5.0 Ø	#J	3.0	1.0	60	10	40	650u	1.0	3.0	20	60	7.0k	250m		A	TO5	AØ
29	2N2566/5	66m	5.0 Ø	#J	3.0	1.0	80	10	50	650u	1.0	3.0	20	60	7.0k	250m		A	TO5	AØ
30	2N2567/5	66m	5.0 Ø	#J	3.0	1.0	100	10	60	650u	1.0	3.0	20	60	7.0k	250m		A	TO5	AØ
31	2N3461	66m	5.0 Ø	♦C	3.0	1.0	60	1.5	30	3.0m#	1.0Ø	500m	90	150	10kΔ	400m			TO5	AØ
32#	TF78/30	66m†	2.7 Ø	ØJ	600m		32	10	24	30m	.70Ø	50mΔ	30	150	700kt		6.0u	AΔ		
33#	TF78/60	66m†	2.7 Ø	ØJ	600m		64	16	45	30m	.70Ø	50mΔ	30	150	700kt		6.0uØ	AΔ		
34	2N1172†	67m		#J	1.5 Ø#	.25	40	20	30	.20mØ	2.0Ø	.10	30	90		.60			TO37	AØ
35	2N2282	67mØ		♦J	3.0		60		30	.05mØ	1.0	.50	30	75	2.5Mt	.30		DA	TO37	AØ
36	2N2283	67mØ		♦J	3.0		100		60	.05mØ	1.0	.50	30	75	2.5Mt	.30		DA	TO37	AØ
37	2N2284	67mØ		♦J	3.0		200		100	.05mØ	1.0	.50	30	75	2.5Mt	.30		DA	TO37	AØ
38	2N2467	67mØ		♦	3.0		60	1.5	60	.10mØ	1.0Ø	.50	30	90		.40			R50	
39	2N2468	67mØ		♦	3.0		100	1.5	100	.10mØ	1.0Ø	.50	30	90		.40			R50	
40	2N2469	67mØ		♦	3.0		200	1.5	200	.15mØ	1.0	.50	30	90		.40			R50	
41#	2SB473	72mØ	4.3	#J	1.0		32	6.0		15uØ	0.0	500mΔ	40	180	10k			A	MD10c	
42#	TF78	77m	2.0 Ø	ØJ	600m		16	5.0	16	30u	.30Ø	600m	20	150	700k	60		AΔ		
43	2N101/13	80m	1.0	ØJ	1.5		30	15	15 §	5.0m#	2.0Ø	500m	11		600k	2.0		A	TO13	FØ
44#	2SB255	80mØ		ØJ	600m		35	10		500uØ	1.5	200m	30	120				A	MD10	
45#	2SB256	80mØ		ØJ	600m		35	10		500u	1.5	200m	30	250				A	MD10	
46#	2SB487	83m	5.0 Ø	#J	500m		30	2.5	20 Ø	20uØ	1.0Ø	300m	30	150	1.0Mt			A	MD26a	AØ
47#	2SB488	83m	5.0 Ø	#J	500m		60	12	30 Ø	20uØ	1.0Ø	300m	30	150	1.0Mt			A	MD26a	AØ
48#	2SB180	85m	5.5 Ø	#J	500m		40	12	30 Ø	1.0m	1.5Ø	500m	20	150				A	TO8	
49#	2SB181	85m	5.5 Ø	#J	500m		60	12	40 Ø	1.0m	1.5Ø	500m	20	150				A	TO8	
50	2N1183	100m	1.0	#J	3.0m	500u	45	20	20	250u		400m	20	60	500kt△	1.2			TO8	AØ
51♦	JAN2N1183	100m	7.5	#S			45		20	250u	2.0Ø	400m	20	75	350kt△	750m			TO8	AØ
52	2N1183A	100m	1.0	#J	3.0m	500u	60	20	30	250uØ		400m	20	60	500kt△	1.2			TO8	AØ
53♦	JAN2N1183A	100m	7.5	#S			60		30	250u	2.0Ø	400m	20	75	350kt△	750m			TO8	AØ
54	2N1183B	100m	1.0	#J	3.0m	500u	80	20	40	250u		400m	20	60	500kt△	1.2			TO8	AØ
55♦	JAN2N1183B	100m	7.5	#S			80		40	250u	2.0Ø	400m	20	75	350kt△	750m			TO8	AØ
56	2N1184	100m	1.0	#J	3.0m	500u	45	20	20	250u		400m	40	120	500kt△	1.2			TO8	AØ
57	JAN2N1184	100m	7.5	#S			45	1.5	20		2.0Ø	400m	40	120	350kt△	750m			TO8	AØ
58	2N1184A	100m	1.0	#J	3.0m	500u	60	20	30	250uØ		400m	40	120	500kt△	1.2			TO8	AØ
59	JAN2N1184A	100m	7.5	#S			60	1.5	30		2.0Ø	400m	40	120	350kt△	750m			TO8	AØ
60	2N1184B	100m	1.0	#J	3.0m	500u	80	20	40	250u		400m	40	120	500kt△	1.2			TO8	AØ
61	JAN2N1184B	100m	7.5	#S			80	1.5	40		2.0Ø	400m	40	120	350kt△	750m			TO8	AØ
62	2N3732	100m#	3.0 Ø	#C	3.0	500m	100 †	.50	100 Ø	200uØ	4.0Ø	700m	35	500	1.0M§Δ	350m			TO3	CØ
63#	2SB462	100m	6.0 Ø	#J	2.0	2.0 Ø	60	12	60 §	70uØ	1.0Ø	500mØ	30	250 *	900kt			A	TO66	CØ
64#	2SB463	100m	6.0 Ø	#J	2.0	2.0 Ø	32	12	32 §	70uØ	1.0Ø	500mØ	30	250 *	900kt			A	TO66	CØ
65#	2SB331	106m	8.0 #								2.0	5.0	20	125	.35kt				TO36	
66#	2SB332	106m	8.0 #								2.0	5.0	20	125	.35kt				TO36	
67#	2SB333	106m	8.0 #								2.0	5.0	25	70	.35kt				TO36	
68#	2SB334	106m	8.0 #								2.0	5.0	25	50	.35kt				TO36	
69#	2SB19	122mØ	5.5 Ø	ØJ	2.5		16			100uØ	2.0Ø	50m	20	250				A	R58	
70#	2SB20	122mØ	5.5 Ø	ØJ	2.5		32			100uØ	2.0Ø	50m	20	250				A	R58	
71#	2SB21	122mØ	5.5 Ø	ØJ	2.5		60			100uØ	2.0Ø	50m	20	250				A	R58	
72♦	2N677	125m		#J	15		50	25	20	200uØ♦	2.0Ø	10	20	60		100m			TO3	CØ
73♦	2N677A	125m		#J	15		60	25	30	200uØ♦	2.0Ø	10	20	60		100m			TO3	CØ
74♦	2N677B	125m		#J	15		90	25	60	200uØ♦	2.0Ø	10	20	60		100m			TO3	CØ
75♦	2N677C	125m		#J	15		100	25	70	200uØ♦	2.0Ø	10	20	60		100m			TO3	CØ
76♦	2N678	125m		#J	15		50	25	20	200uØ♦	2.0Ø	10	50	100		100m			TO3	CØ
77♦	2N678A	125m		#J	15		60	25	30	200uØ♦	2.0Ø	10	50	100		100m			TO3	CØ
78♦	2N678B	125m		#J	15		90	25	60	200uØ♦	2.0Ø	10	50	100		100m			TO3	CØ
79♦	2N678C	125m		#J	15		100	25	70	200uØ♦	2.0Ø	10	50	100		100m			TO3	CØ
80♦	2N1029A	125m		#J	15		60	25	30	200uØ♦	2.0Ø	10	20	60					MD16	CØ
81♦	2N1029B	125m		#J	15		90	25	60	200uØ♦	2.0Ø	10	20	60					MD16	CØ
82♦	2N1029C	125m		#J	15		100	25	70	200uØ♦	2.0Ø	10	20	60					MD16	CØ
83#	OC26	125m§	13 Ø	#J	3.5	500m	32	10	35	20mØ	1.0Ø	1.0	20	60	150kt			A	TO3	CØ
84	2N4078	130m	8.0		1.0		32	10	25 §		1.0Ø	500	50	300	1.0Mt	.60		A	MD17a	
85#	2SB130	133m		ØJ	1.5		32	10	16	.10mØ	1.0Ø	1.5	20 Ø					A	MD11	
86#	2SB481	133m*	6.0 Ø	#J	1.0	200m#	32	10	16		0.0	1.0 Δ	30	185	15k			A	MD10d	
87#	AD152	133m	6.0 Ø	#J	1.0		45	12	30	30u	1.0Ø	300m	50	150	11k			A	MD17	
88#	AD155	133m	6.0 Ø	#J	1.0		32	12	20	30u	1.0Ø	300m	40		11k			A	MD17	
89#	AD156	133m*	6.0 Ø	#J	2.0		32	10	16	30mØ	1.0Ø	300m	50	250	1.5M§			A		
90#	AD157	133m*	6.0 Ø	#J	2.0		32	10	24	30mØ	1.0Ø	300m	50	250	1.5M§			A		
91#	AD164	133m	6.0	#J	1.0		25	10	20	30u	1.0Ø	500m	80	330	11k			A	MD17	
92#	AD169	133m	6.0	#J	1.0		45	12	30	30u	1.0Ø	500m	35	160	11k			A	MD17	
93#	AUZ11	133mØ		ØJ	2.0	200m	50	70	30	100uØ							6.0u	D	R95	
94	OC30	133mØ	3.6 Ø	ØJ	1.4	250m	32	10	16 §	12uØ	7.0	100m		35 Ø	300kt			A	MD11	
95#	OC30A	133m	4.0 Ø	ØJ	1.4	250m	32	10	16	40uØ	1.0Ø	1.4	12	65		180m		A	MD11	
96#	OC30B	133m	4.0 Ø	ØJ	1.4	250m	60	10	32	40uØ	1.0Ø	1.4	12	65		180m		A	MD11	
97#	OD603	133mØ		ØJ			40	10	30	25uØ								A	R95	
98#	OD603/50	133mØ		ØJ	1.0 #		60	30	50	25uØ								A	R95	
99#	2SB493	139m	9.0 Ø	#J	5.0		40	10	20	1.0m	0.0	3.0 Δ	40		300k§Δ			A	TO8	A
100	2N3212	143m	14 Ø	♦J	5.0	2.0	100	2.0	80	1.0m#	2.0Ø	3.0	30	90	600k§	100m	3.0u	D	TO37	AØ
101	2N3213	143m	14 Ø	♦J	5.0	2.0	80	2.0	60	1.0m#	2.0Ø	3.0	30	90	600k§	100m	3.0u	D	TO37	AØ
102	2N3214	143m	14 Ø	♦J	5.0	2.0	60	2.0	40	1.0m#	2.0Ø	3.0	30	90	600k§	100m	3.0u	D	TO37	AØ
103	2N3215	143m	14 Ø	♦J	5.0	2.0	40	2.0	30	1.0m#	2.0Ø	3.0	25	100	600k§	100m	3.0u	D	TO37	AØ
104#	2SC831	154m	23 Ø	§J	20		50	4.0	25	5.0uØ	10Ø	1.0	15	200	300M§			PE	TO60	
105	2N3731	167m#	5.0 Ø	#C	10 #	4.0 #	320 †	2.0†	320 Ø	200uØ	3.0Ø	6.0	15			250m			TO3	CØ
106	2N4346	167m#	5.0 Ø	#C	10	4.0		2.0	60							130m			TO3	CØ
107#	2SB445	167m	10 Ø	#J	1.5	1.5 Ø	40	1.0	40 §	200uØ	2.0Ø	1.0	40	200	1.5M§			D	MD10a	
108#	2SB446	167m	10 Ø	#J	1.5	1.5 Ø	60	1.0	50 §	100uØ	2.0Ø	1.0	40	200	1.5M§			D	MD10a	
109	40612	167m	12 Ø	#A	5.0	1.0		5.0		3.0u	2.0Ø	1.0	30	150				A	TO3	CØ
110	40623	167m	12 Ø	#A	5.0	1.0		5.0		500u	2.0Ø	1.0	50	170				A	TO3	CØ

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DESCRIPTION DWG. No.	L C E O A D D E
1	40626	167m	12 Ø	#A	5.0	1.0		5.0		500u	2.0Ø	1.0	50	170				A	TO3	CØ
2#	AUY10	182m#	4.5 Ø	ØJ	700m	50m	70		60	2.0mØ†	10	600mΔ	40		120M§			ADΔ	TO3	
3#	2SB180A	185m	12 Ø	#J	500m	500mØ	40	12	30 Ø	500uØ	1.5Ø	500m	25	150	13k			A	TO8	
4#	2SB181A	185m	12 Ø	#J	500m	500mØ	60	12	40 Ø	200uØ	1.5Ø	500m	25 *	150	13k			A	TO8	
5#	2SB338	185m	12 Ø	#J	7.0	1.0	60	10	30	1.0mØ	1.5Ø	4.0	50 Ø		250k†	40m▼		A	MD24	
6#	2SB339	185m	12 Ø	#J	10	1.0	80	50	35	250uØ	1.0Ø	8.0	35 Ø		250k†	70m▼		A	MD24	
7#	2SB340	185m	12 Ø	#J	10	1.0	100	50	40	250uØ	1.0Ø	8.0	35 Ø		250k†	50m▼		A	MD24	
8#	2SB341	185m	12 Ø	#J	10	1.0	120	50	50	250uØ	1.0Ø	8.0	35 Ø		250k†	50m▼		A	MD24	
9#	2SB362	185m	12 Ø	#J	7.0	1.0	100	1.0	40	500uØ	2.0Ø	4.5	90 Ø		50k	160m		A	MD24	
10#	2SB466	185m	12	#J	500m	500mØ	40	12	30 Ø	500uØ	1.5Ø	500m	25	150	13k			A	MD10a	
11#	2SB467	185m	12	#J	500m	500mØ	60	12	40 Ø	200uØ	1.5Ø	500m	25	150	13k			A	MD10a	
12	JAN2N1549A†	.2	90 Ø	#J	15	5.0	40	20	20	3.0mØ	2.0Ø	10	10	30	10kΔ	100m	8.0u☑		MD6f	CØ
13	JAN2N1550A†	.2	90 Ø	#J	15	5.0	60	30	30	3.0mØ	2.0Ø	10	10	30	10kΔ	100m	8.0u☑		MD6f	CØ
14	JAN2N1551A†	.2	90 Ø	#J	15	5.0	80	40	40	3.0mØ	2.0Ø	10	10	30	10kΔ	100m	8.0u☑		MD6f	CØ
15	JAN2N1552A†	.2	90 Ø	#J	15	5.0	100	50	50	3.0mØ	2.0Ø	10	10	30	10kΔ	100m	8.0u☑		MD6f	CØ
16	JAN2N1553A†	.2	90 Ø	#J	15	5.0	50	20	20	3.0mØ	2.0Ø	10	30	60	3.0kΔ	700m	10u☑		MD6f	CØ
17	JAN2N1554A†	.2	90 Ø	#J	15	5.0	60	30	30	3.0mØ	2.0Ø	10	30	60	3.0kΔ	700m	10u☑		MD6f	CØ
18	JAN2N1555A†	.2	90 Ø	#J	15	5.0	80	40	40	3.0mØ	2.0Ø	10	30	60	3.0kΔ	700m	10u☑		MD6f	CØ
19	JAN2N1557A†	.2	90 Ø	#J	15	5.0	50	20	20	3.0mØ	2.0Ø	10	50	100	3.0kΔ	50m	10u		MD6f	CØ
20	JAN2N1559A†	.2	90 Ø	#J	15	5.0	80	40	40	3.0mØ	2.0Ø	10	50	100	3.0kΔ	50m	10u		MD6f	CØ
21	JAN2N1560A†	.2	90 Ø	#J	15	5.0	100	50	50	3.0mØ	2.0Ø	10	50	100	3.0kΔ	50m	10u		MD6f	CØ
22	2N1658/13	200m	15 Ø	#J	1.0		80		50 Ø			200m	30	90	10k			A	ZA22	
23	2N1659/13	200m	15 Ø	#J	1.0		60		40 Ø			200m	30	90	10k			A	ZA22	
24	2N2659	200m	15 Ø	#J	3.0	1.0	50	20	30	125uØ	.50Ø	500m	30	90	280k§Δ	400m		A	R122	
25	2N2660	200m	15 Ø	#J	3.0	1.0	70	20	40	125uØ	.50Ø	500m	30	90	280k§Δ	400m		A	R122	
26	2N2661	200m	15 Ø	#J	3.0	1.0	90	20	50	125uØ	.50Ø	500m	30	90	280k§Δ	400m		A	R122	
27	2N2662	200m	15 Ø	#J	3.0	1.0	50	20	30	125uØ	.50Ø	500m	30	90	280k§Δ	400m		A	R62	
28	2N2663	200m	15 Ø	#J	3.0	1.0	70	20	40	125uØ	.50Ø	500m	30	90	280k§Δ	400m		A	R62	
29	2N2664	200m	15 Ø	#J	3.0	1.0	90	20	50	125uØ	.50Ø	500m	30	90	280k§Δ	400m		A	R62	
30	2N2665	200m	15 Ø	§J	3.0	1.0	50	20	30	125uØ	.50Ø	500m	50	150	300k§Δ	400m		A	R122	
31	2N2666	200m	15 Ø	§J	3.0	1.0	70	20	40	125uØ	.50Ø	500m	50	150	300k§Δ	400m		A	R122	
32	2N2667	200m	15 Ø	§J	3.0	1.0	90	20	50	125uØ	.50Ø	500m	50	150	300k§Δ	400m		A	R122	
33	2N2668	200m	15 Ø	#J	3.0	1.0	50	20	30	125uØ	.50Ø	500m	50	150	300k§Δ	400m		A	MT27	
34	2N2669	200m	15 Ø	#J	3.0	1.0	70	20	40	125uØ	.50Ø	500m	50	150	300k§Δ	400m		A	MT27	
35	2N2670	200m	15 Ø	#J	3.0	1.0	90	20	50	125uØ	.50Ø	500m	50	150	300k§Δ	400m		A	MT27	
36#	2SB448	200m	13 Ø	#J	1.0	200m	32	10		1.0m#		1.0 Δ	30	110	10kΔ			A	MD11	
37#	AD136	200m*	9.0 Ø	#J	10		40	10	22		.50Ø	5.0	20	100	300k§			AΔ	TO8	
38#	AD159	200m*	90 Ø	#J	8.0		40	10	22	1.0m	.50Ø	5.0	20	45 Ø	300k§			A	TO8	
39#	AD160	200m*	90 Ø	#J	10		40	10	22	1.0m	.50Ø	5.0	50	90 Ø	300k§			A	TO8	
40#	AUY18	200m*	9.0 Ø	#J	8.0		64	20	35		.50Ø	5.0 Ø	20	60	300k§			AΔ	TO8	
41#	AUY35	200m	15		10	3.0	70	2.0	25	.10mØ	1.0Ø	5.0	35	260	2.5M§			D	TO8	
42#	AUY36	200m	15		10	3.0	70	2.0	25	.10mØ	1.0Ø	5.0	100		3.0M§			D	TO8	
43#	AD162	222m	6.0	#J	3.0	100m	32	10	20	200u	1.0Ø	50m	74	300	1.5M§			A	MD17c	A
44	2N2835	250m	16 #		1.0	.20	32	10	32		0.0	1.0 Δ	30			10		A	MD17	
45#	AD148	250m*	11 Ø	#J	2.0	400m	32	10	32 §		1.0Ø	1.0	30	100	450k§			A	MD23	
46#	TF80/30	250mØ	6.0 Ø	ØJ	2.5		32	10	30	100u	6.0Ø	300m	45 Ø		250k†		12u	AΔ	R57	
47#	TF80/60	250mØ	6.0 Ø	ØJ	2.5		64	20	45	100u	6.0	300m	45 Ø		250k†		12u	AΔ	R58	
48#	TF80/80	250mØ	6.0 Ø	ØJ	3.0		80	20	80	230u	1.3Ø	1.5	15	30 Ø	250k†		12u	AΔ	R58	
49	2N1038-1	263m	1.0	#J	3.0	1.0	40	20	30	650u	.50Ø	1.0	20	60	7.0k	250m		AΔ	MT27	AØ
50	2N1038-2	263m	1.0	#J	3.0	1.0	40	20	30	650u	.50Ø	1.0	20	60	7.0k	250m		AΔ	MT28	AØ
51	2N1039-1	263m	1.0	#J	3.0	1.0	60	20	40	650u	.50Ø	1.0	20	60	7.0k	250m		AΔ	MT27	AØ
52	2N1039-2	263m	1.0	#J	3.0	1.0	60	20	40	650u	.50Ø	1.0	20	60	7.0k	250m		AΔ	MT28	AØ
53	2N1040-1	263m	1.0	#J	3.0	1.0	80	20	50	650u	.50Ø	1.0	20	60	7.0k	250m		AΔ	MT27	AØ
54	2N1040-2	263m	1.0	#J	3.0	1.0	80	20	50	650u	.50Ø	1.0	20	60	7.0k	250m		AΔ	MT28	AØ
55	2N1041-1	263m	1.0	#J	3.0	1.0	100	20	60	650u	.50Ø	1.0	20	60	7.0k	250m		AΔ	MT27	AØ
56	2N1041-2	263m	1.0	#J	3.0	1.0	100	20	60	650u	1.0Ø	3.0	20	60	7.0k	250m		AΔ	MT28	AØ
57	2N1042	263m	1.0	#J	3.0	1.0	40	20	30	650u	1.0Ø	3.0	20	60	7.0k	250m		AΔ	ZA1	
58	2N1042-1	263m	1.0	#J	3.0	1.0	40	20	30	650u	1.0Ø	3.0	20	60	7.0k	250m		AΔ	MT27	AØ
59	2N1042-2Δ	263m	1.0	#J	3.0	1.0	40	20	30	650u	1.0Ø	3.0	20	60	7.0k	250m		AΔ	MT28	AØ
60	2N1042-2☑	263m	1.0	#J	3.0	1.0	40	20	30	650u	1.0Ø	3.0	20	60	7.0k	250m		AΔ	R122	
61	2N1043	263m	1.0	#J	3.0	1.0	60	20	40	650u	1.0Ø	3.0	20	60	7.0k	250m		AΔ	ZA1	
62	2N1043-1	263m	1.0	#J	3.0	1.0	60	20	40	650u	1.0Ø	3.0	20	60	7.0k	250m		AΔ	MT27	AØ
63	2N1043-2Δ	263m	1.0	#J	3.0	1.0	60	20	40	650u	1.0Ø	3.0	20	60	7.0k	250m		AΔ	MT28	AØ
64	2N1043-2☑	263m	1.0	#J	3.0	1.0	60	20	40	650u	1.0Ø	3.0	20	60	7.0k	250m		AΔ	R122	
65	2N1044	263m	1.0	#J	3.0	1.0	80	20	50	650u	1.0Ø	3.0	20	60	7.0k	250m		AΔ	ZA1	
66	2N1044-1	263m	1.0	#J	3.0	1.0	80	20	50	650u	1.0Ø	3.0	20	60	7.0k	250m		AΔ	MT27	AØ
67	2N1044-2Δ	263m	1.0	#J	3.0	1.0	80	20	50	650u	1.0Ø	3.0	20	60	7.0k	250m		AΔ	MT28	AØ
68	2N1044-2☑	263m	1.0	#J	3.0	1.0	80	20	50	650u	1.0Ø	3.0	20	60	7.0k	250m		AΔ	R122	
69	2N1045	263m	1.0	#J	3.0	1.0	100	20	60	650u	1.0Ø	3.0	20	60	7.0k	250m		AΔ	ZA1	
70	2N1045-1	263m	1.0	#J	3.0	1.0	100	20	60	650u	1.0Ø	3.0	20	60	7.0k	250m		AΔ	MT27	AØ
71	2N1045-2Δ	263m	1.0	#J	3.0	1.0	100	20	60	650u	1.0Ø	3.0	20	60	7.0k	250m		AΔ	MT28	AØ
72	2N1045-2☑	263m	1.0	#J	3.0	1.0	100	20	60	650u	1.0Ø	3.0	20	60	7.0k	250m		AΔ	R122	
73	2N1038	267m	20 Ø	#S	3.0	1.0	40	20		125uØ	.50Ø	1.0 Ø	20	60	8.5k			A	R122	
74	2N1039	267m	20 Ø	#S	3.0	1.0	60	20		125uØ	.50Ø	1.0 Ø	20	60	8.5k			A	R122	
75	2N1040	267m	20 Ø	#S	3.0	1.0	80	20		125uØ	.50Ø	1.0 Ø	20	60	8.5k			A	R122	
76	2N1041	267m	20 Ø	#S	3.0	1.0	100	20		125uØ	.50Ø	1.0 Ø	20	60	8.5k			A	R122	
77	JAN2N1042	267m	20 Ø	#S			40	20	30	1.0mØ	1.0Ø	3.0	20	60	250M§Δ	250m			MT28	
78	JAN2N1043	267m	20 Ø	#S			60	20	40	5.0mØ	1.0Ø	3.0	20	60	250M§Δ	250m			MT28	
79	JAN2N1044	267m	20 Ø	#S			80	20	50	5.0mØ	1.0Ø	3.0	20	60	250M§Δ	250m			MT28	
80	JAN2N1045	267m	20 Ø	#S			100	20	60	5.0mØ	1.0Ø	3.0	20	60	250M§Δ	250m			MT28	
81	2N2552	267m	20 Ø	#S	3.0	1.0	40	20		125uØ	.50Ø	1.0 Ø	20	60	225k§Δ			A	MT27	
82	2N2553	267m	20 Ø	#S	3.0	1.0	60	20		125uØ	.50Ø	1.0 Ø	20	60	225k§Δ			A	MT27	
83	2N2554	267m	20 Ø	#S	3.0	1.0	80	20		125uØ	.50Ø	1.0 Ø	20	60	225k§Δ			A	MT27	
84	2N2555	267m	20 Ø	#S	3.0	1.0	100	20		125uØ	.50Ø	1.0 Ø	20	60	225k§Δ			A	MT27	
85	2N2556	267m	20 Ø	#S	3.0	1.0	40	20		125uØ	.50Ø	1.0 Ø	20	60	225k§Δ			A	MT28	
86	2N2557	267m	20 Ø	#S	3.0	1.0	60	20		125uØ	.50Ø	1.0 Ø	20	60	225k§Δ			A	MT28	
87	2N2558	267m	20 Ø	#S	3.0	1.0	80	20		125uØ	.50Ø	1.0 Ø	20	60	225k§Δ			A	MT28	
88	2N2559	267m	20 Ø	#S	3.0	1.0	100	20		125uØ	.50Ø	1.0 Ø	20	60	225k§Δ			A	MT28	
89	2N2560	267m	20 Ø	#S	3.5	1.0	40	20		125uØ	1.0Ø	3.0 Ø	20	60	225k§Δ			A	MT28	
90	2N2561	267m	20 Ø	#S	3.5	1.0	60	20		125uØ	1.0Ø	3.0 Ø	20	60	250k§Δ			A	MT27	
91	2N2562	267m	20 Ø	#S	3.5	1.0	80	20		125uØ	1.0Ø	3.0 Ø	20	60	250k§Δ			A	MT27	
92	2N2563	267m	20 Ø	#S	3.5	1.0	100	20		125uØ	1.0Ø	3.0 Ø	20	60	250k§Δ			A	MT27	
93	2N2564	267m	20 Ø	#S	3.5	1.0	40	20		125uØ	1.0Ø	3.0 Ø	20	60	250k§Δ			A	R122	
94	2N2565	267m	20 Ø	#S	3.5	1.0	60	20		125uØ	1.0Ø	3.0 Ø	20	60	250k§Δ			A	R122	
95	2N2566	267m	20 Ø	#S	3.5	1.0	80	20		125uØ	1.0Ø	3.0 Ø	20	60	250k§Δ			A	R122	
96	2N2567	267m	20 Ø	#S	3.5	1.0	100	20		125uØ	1.0Ø	3.0 Ø	20	60	250k§Δ			A	R122	
97	TI156	267m	20	#J	3.0	1.0	30	15	30	650u	2.0Ø	500m	25	75	220k†	250m		A	MM8	
98	TI156L	267m	20	#J	3.0	1.0	30	15	30	650u	2.0Ø	500m	25	75	220k†	250m		A	MM7	
99	TI158	267m	20	#J	3.0	1.0	60	30	40	650u	2.0Ø	500m	25	75	220k†	250m		A	MM8	
100	TI158A	267m	20	#J	3.0	1.0	80	30	60	650u	2.0Ø	500m	25	75	220k†	250m		A	MM8	
101	TI158AL	267m	20	#J	3.0	1.0	80	30	60	650u	2.0Ø	500m	25	75	220k†	250m		A	MM7	
102	TI158L	267m	20	#J	3.0	1.0	60	30	40	650u	2.0Ø	500m	25	75	220k†	250m		A	MM7	
103	TI159	267m	20	#J	3.0	1.0	40	20	30	650u	.50	1.0	20	60	225k	250m		A	R101	
104	TI160	267m	20	#J	3.0	1.0	60	20	40	650u	.50	1.0	20	60	225k	250m		A	R101	
105	TI161	267m	20	#J	3.0	1.0	80	20	50	650u	.50	1.0	20	60	225k	250m		A	R101	
106	TI162	267m	20	#J	3.0	1.0	100	20	60	650u	.50	1.0	20	60	225k	250m		A	R101	
107	TI539	267m	20	#J	3.5	1.0	60	28	60	500u	2.0Ø	2.0	30	75	250k†	250m		A	MT45	
108	TI540	267m	20	#J	3.5	1.0	80	28	60	1.0m	2.0Ø	2.0	45	113	250k†	250m		A	MT45	
109	2N68/13	270m	20 Ø	#J	3.0		30		15 Ø			500m	15		10k			A	ZA24	
110	2N1078	270m	20 Ø	#J	3.0		60		45 Ø			500m	30		8.0k			A	TO13	FØ

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AE XM P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CONFIG.
1	2N1328	270m	20 Ø	#J	3.0		35		30 Ø			500m	30		8.0k			A	TO13	FØ
2	2N1331	270m	20 Ø	#J	3.0		80		60 Ø			500m	30		8.0k			A	TO13	FØ
3	2N1333	270m	20 Ø	#J	3.0		100		80 Ø			500m	30		8.0k			A	TO13	FØ
4	KM7007	270m	20 Ø	#J	3.0		30		30 Ø			500m	25		6.0k	300m			MS7	CØ
5	KM7008	270m	20 Ø	#J	3.0		60		60 Ø			500m	21		6.0k	300m			MS7	CØ
6	KM7009	270m	20 Ø	#J	3.0		80		60 Ø			500m	21		6.0k	300m			MS7	CØ
7	KM7010	270m	20 Ø	#J	3.0		100		80 Ø			500m	21		6.0k	300m			MS7	CØ
8	LT11	270m	20 Ø	#J	3.0		100		80 Ø			500m	21		8.0k			A	ZA24	
9	LT12	270m	20 Ø	#J	3.0		150		100 Ø			500m	21		8.0k			A	ZA24	
10	LT13	270m	20 Ø	#J	3.0		150		120 Ø			500m	21		8.0k			A	ZA24	
11	LT14	270m	20 Ø	#J	3.0		175		150 Ø			500m	21		8.0k			A	ZA24	
12	LT15	270m	20 Ø	#J	3.0		200		150 Ø			500m	21		8.0k			A	ZA24	
13	JAN2N158	279m	17 Ø	#S	2.0 Ø		60	30	60 Ø	1.0m	2.0Ø	1.0	13	40	4.0kΔ	750m			MM3	
14	2N3730	303m#	10 Ø	#J	3.0	500m	200	.50	200 Ø	200uØ	4.0Ø	50mØ	10	200	1.0M§Δ	880m			TO3	CØ
15	2N141/13	333m	20	#J	1.0	500m	60	30	30	2.0m	2.0Ø	500m	25			4.0		A	TO13	FØ
16	2N143/13	333m	20	#J	1.0		60	30	30 §	5.0m	6.0Ø	250m	10			6.0		A	TO13	FØ
17	2N155	333mØ	1.5	#J	3.0	500m	30	15	15	1.0m	2.0Ø	500m	32 Ø		180kt	650m		A	TO3	CØ
18	2N156	333m		#J	3.0	.50	30	15	30	1.0m	2.0Ø	.50	25	32 Ø	4.0kΔ	.75		AΔ	TO13	F
19	2N158	333m		#J	3.0	.50	60	30	60	1.0m	2.0Ø	.50	21	32 Ø	4.0kΔ	.75		AΔ	TO13	F
20	2N158A	333m		#J	3.0	.50	80	30	60	1.0m	2.0Ø	.50	21	32 Ø	4.0kΔ	.75		AΔ	TO13	F
21	2N242	333m	25 Ø	#J	2.0		45	45	45	5.0mØ				40	5.0k	800m			MD9	
22	2N255	333mØ		#J	3.0	.50	15	15	15	1.0m	2.0Ø	.50	30 Ø	100				A	TO3	CØ
23	2N255A	333mØ		#J	3.0	.50	15	15	15	5.0m	2.0Ø	.50	30 Ø		125kt			A	TO3	CØ
24	2N256	333mØ		#J	3.0	.50	30	30	30	1.0m	2.0Ø	.50	30 Ø	100				A	TO3	CØ
25	2N256A	333mØ		#J	3.0	.50	30	15	25	5.0mØ	2.0Ø	.50	30 Ø		125kt			A	TO3	CØ
26	2N296	333m	20 Ø	#J	2.0		30	15	60	1.0m	2.0Ø	1.0	20		4.0k	1.0		A	TO3	CØ
27	2N1320	333m	20 Ø	#J	3.0		35	15	30	1.5m	2.0Ø	500m	40			1.0			TO10	FØ
28	2N1322	333m	20 Ø	#J	3.0		60	15	60	1.5m	2.0Ø	500m	40			1.0			TO10	FØ
29	2N1324	333m	20 Ø	#J	3.0		80	15	80	2.0m	2.0Ø	500m	40			1.0			TO10	FØ
30	2N1326	333m	23	#J	3.0		100	15	75	2.0m	2.0Ø	500m	30	90		1.0		A	TO10	F
31	2N1437	333m	23 Ø	#J	3.0	500m	100	15	80	2.0m	2.0Ø	500m	20		150k	750m		A	TO13	F
32	2N1438	333m	23	#J	3.0	500m	100	30	90 Ø	2.0m	2.0Ø	500m	20		4.0kΔ	1.0		A	TO10	F
33	2N1465	333m	20	#J	3.0	500m	120	15	100 Ø	2.5m	2.0Ø	500m	20			750m		A	TO13	F
34	2N1466	333m	20	#J	3.0	500m	120	15	100 Ø	2.5m	2.0Ø	500m	20			750m		A	TO10	F
35	2N1504/10	333m		#J	3.0	.50	80	30	60	1.0m	2.0Ø	.50	21		150kt	.75		A	TO10	FØ
36	LT5021	333m		#J	3.0	.50	30	15	30	1.5m	2.0Ø	.50	20		100kt	1.0			TO10	FØ
37	LT5023	333m		#J	3.0	.50	30	15	30	1.5m	2.0Ø	.50	40		100kt	1.0			TO13	FØ
38	LT5024	333m		#J	3.0	.50	30	15	30	1.5m	2.0Ø	.50	40		100kt	1.0			TO10	FØ
39	LT5026	333m		#J	3.0	.50	30	15	30	1.5m	2.0Ø	.50	60		100kt	1.0			TO13	FØ
40	LT5027	333m		#J	3.0	.50	30	15	30	1.5m	2.0Ø	.50	60		100kt	1.0			TO10	FØ
41	LT5029	333m		#J	3.0	.50	60	15	60	1.5m	2.0Ø	.50	40		100kt	1.0			TO13	FØ
42	LT5030	333m		#J	3.0	.50	60	15	60	1.5m	2.0Ø	.50	40		100kt				TO10	FØ
43	LT5032	333m		#J	3.0	.50	60	15	60	1.5m	2.0Ø	.50	60		100kt	1.0			TO13	FØ
44	LT5033	333m		#J	3.0	.50	60	15	60	1.5m	2.0Ø	.50	60		100kt	1.0			TO10	FØ
45	LT5035	333m		#J	3.0	.50	100	15	90	2.0m	2.0Ø	.50	20		100kt	1.0			TO13	FØ
46	LT5036	333m		#J	3.0	.50	100	15	90	2.0m	2.0Ø	.50	20		100kt	1.0			TO10	FØ
47	LT5037	333m		#J	3.0	.50	100	15	90	2.0m	2.0Ø	.50	40		100kt	1.0			TO13	FØ
48	LT5040	333m		#J	3.0	.50	100	15	90	2.0m	2.0Ø	.50	60		100kt	1.0			TO13	FØ
49	LT5041	333m		#J	3.0	.50	100	15	90	2.0m	2.0Ø	.50	60		100kt	1.0			TO10	FØ
50	LT5043	333m		#J	3.0	.50	120	15	100	2.5m	2.0Ø	.50	20		100kt	1.0			TO13	FØ
51	LT5044	333m		#J	3.0	.50	120	15	100	2.5m	2.0Ø	.50	20		100kt	1.0			TO10	FØ
52	LT5046	333mØ		#J	3.0	.50	120	15	100	2.5m	2.0Ø	.50	40		100kt	1.0			TO13	FØ
53	LT5047	333mØ		#J	3.0	.50	120	15	100	2.5m	2.0Ø	.50	40		100kt	1.0			TO10	FØ
54	LT5049	333m		#J	3.0	.50	120	15	100	2.5m	2.0Ø	.50	60		100kt	1.0			TO13	FØ
55	LT5050	333m		#J	3.0	.50	120	15	100	2.5m	2.0Ø	.50	60		100kt	1.0			TO10	FØ
56	LT5152	333m		#J	3.0		30	15	30	1.5m	2.0Ø	.50	20		100kt	1.0			TO13	FØ
57	LT5153	333m		#J	3.0		60	15	60	1.5m	2.0Ø	.50	20		100kt	1.0			TO13	FØ
58#	OC22	333mØ	15 Ø	ØJ	1.0	200m	47	12	32	100uØ	2.0	1.0	50	150 Ø	2.5Mt			AΔ	TO3	CØ
59	OC23	333mØ*	16 Ø	ØJ	1.0	200m	55	12	24	30uØ	2.0	1.0	50	150 Ø	2.5Mt			AΔ	TO3	CØ
60#	OC24	333mØ	15 Ø	ØJ	1.0	200m	47	12	32	100uØ	2.0	1.0	50	150 Ø	2.5Mt			AΔ	TO3	CØ
61#	2G240	376mØ		*J	3.0		80	1.0		1.0mØ	2.0Ø	500m	40	70 Ø	15Mt	1.3	700n	D	MD6	
62	KJ2000	384m	40 Ø	#J	15		80		50			12	10		6.0k			A	TO10	FØ
63	KJ2001	384m	40 Ø	#J	15		100		60			12	10		6.0k			A	TO10	FØ
64	KJ2002	384m	40 Ø	#J	15		80		50			2.0	80	240	6.0k			A	TO10	FØ
65	KJ2003	384m	40 Ø	#J	15		100		60			2.0	80	240	6.0k			A	TO10	FØ
66	KM7000	384m	28 Ø	#J	3.0		60		35 Ø			500m	60		10k				MS7	CØ
67	KM7001	384m	28 Ø	#J	3.0		100		75 Ø			500m	60	150	90k				MS7	CØ
68	KM7002	384m	28 Ø	#J	3.0		80		65 Ø			500m	50			210m			MS7	CØ
69	JAN2N1046	400m	30 Ø	#J			100	1.5	50	1.0mØ	1.0Ø	500m	40	200	15M§Δ	1.0		D	TO3	Ø
70	2N1755†	400m	28 Ø	#J	3.0	2.0	40	30	30 Ø	3.0m	2.0Ø	500m	30	75	15kΔ	230m	4.0u	A	MS7	
71	2N1756†	400m	28 Ø	#J	3.0	2.0	60	30	50 Ø	3.0m	2.0Ø	500m	30	75	15kΔ	230m	4.0u	A	MS7	
72	2N1757†	400m	28 Ø	#J	3.0	2.0	80	30	65 Ø	3.0m	2.0Ø	500m	30	75	15kΔ	230m	4.0u	A	MS7	
73	2N1758†	400m	28 Ø	#J	3.0	2.0	100	30	75 Ø	3.0m	2.0Ø	500m	30	75	15kΔ	230m	4.0u	A	MS7	
74	2N1759†	400m	28 Ø	#J	3.0	2.0	40	30	35 Ø	3.0m	2.0Ø	500m	60	150	15kΔ	160m	3.5u	A	MS7	
75	2N1760†	400m	28 Ø	#J	3.0	2.0	60	30	50 Ø	3.0m	2.0Ø	500m	60	150	15kΔ	160m	3.5u	A	MS7	
76	2N1761†	400m	28 Ø	#J	3.0	2.0	80	30	65 Ø	3.0m	2.0Ø	500m	60	150	15kΔ	270m	5.0u	A	MS7	
77	2N1762†	400m	28 Ø	#J	3.0	2.0	100	30	75 Ø	2.0m	2.0Ø	500m	60	150	15kΔ	270m	5.0u	A	MS7	
78	2N2067	400m§	10 Ø	#J	3.0	2.0	40	20	35 Ø	3.0m	14Ø	500m	20		7.0k	700m		A	MS7	
79	2N2067-0	400m§	10 Ø	#J	3.0	2.0	40	20	35 Ø	3.0m	14Ø	500m	20		7.0k	500m		A	MS7	CØ
80	2N2067B	400m§	10 Ø	#J	3.0	2.0	40	20	35 Ø	3.0m	14Ø	500m	15		7.0k	500m		A	MS7	CØ
81	2N2067G	400m§	10 Ø	#J	3.0	2.0	40	20	35 Ø	3.0m	14Ø	500m	25		7.0k	500m		A	MS7	CØ
82	2N2067W	400m§	10 Ø	#J	3.0	2.0	40	20	35 Ø	3.0m	14Ø	500m	30		7.0k	500m		A	MS7	CØ
83	2N2068	400m§	10 Ø	#J	3.0	2.0	80	40	65 Ø	3.0m	14Ø	500m	20		7.0k			A	MS7	
84	2N2068-0	400m§	10 Ø	#J	3.0	2.0	80	40	65 Ø	3.0m	14Ø	500m	20		7.0k			A	MS7	CØ
85	2N2068G	400m§	10 Ø	#J	3.0	2.0	80	40	65 Ø	3.0m	14Ø	500m	25		7.0k			A	MS7	CØ
86#	2SB215	400mØ		ØJ	3.0		100	20		.50mØ	1.5Ø	1.0	20	200		.10		A	TO3	
87#	2SB216	400m		ØJ	1.5		60	10		.50mØ	1.5	.20	25	200				A	TO3	
88#	2SB217	400m		ØJ	1.5		20	10		.50mØ	1.5	.20	25	200				A	TO3	
89#	2SB254	400mØ		ØJ	.60		35	10		.50mØ	1.5	.20	50	250				A	MD10	
90	B10475	400m	40 Ø	♦J	10	2.0	100		150 Ø	2.0m						230m	2.0u#	DAΔ	TO3	CØ
91	CST1773†	400m	28 Ø	#J	3.0	2.0	25	20	20 Ø	5.0m	2.0Ø	500m	25	45 Ø	15k	500m	4.0u	AΔ	MS7	
92	CST1773At	400m	28 Ø	#J	3.0	2.0	40	20	35 Ø	5.0m	2.0Ø	500m	25	45 Ø	15k	500m	4.0u	AΔ	MS7	
93	CST1773Bt	400m	28 Ø	#J	3.0	2.0	80	30	60 Ø	5.0m	2.0Ø	500m	25	45 Ø	15k	500m	4.0u	AΔ	MS7	
94	CST1789	400m	28 Ø	#J	3.0	2.0	120	35	90 Ø	3.0m	2.0Ø	500m	30	75	10kΔ	230m		AΔ	MS7	
95	KM7011	400m	30 Ø	#J	5.0		30		30 Ø			5.0	50		8.0k	100m			MS7	CØ
96	KM7012	400m	30 Ø	#J	5.0		60		50 Ø			5.0	50		8.0k	100m			MS7	CØ
97	KM7013	400m	30 Ø	#J	5.0		80		60 Ø			5.0	50		8.0k	100m			MS7	CØ
98	KM7014	400m	30 Ø	#J	5.0		100		80 Ø			5.0	50		8.0k	100m			MS7	CØ
99	KM7015	400m	30 Ø	#J	5.0		60		50 Ø			5.0	35		10k	100m			MS7	CØ
100	KM7016	400m	30 Ø	#J	5.0		80		60 Ø			5.0	35		10k	100m			MS7	CØ
101	KM7017	400m	30 Ø	#J	5.0		100		80 Ø			5.0	25		10k	100m			MS7	CØ
102	JAN2N539	440m	11 Ø§	#J	3.5 Ø		80	28	55	2.0m	2.0Ø	2.0	30	75 #	300k§Δ	300m			MT36	
103	JAN2N539A	440m	11 Ø§	#J	3.5 Ø		80	28	55	2.0m	2.0Ø	2.0	30	75 #	300k§Δ	300m			MT36	
104	2N538	455m§	34 Ø	#J	3.5 Ø	500m	80	28	60	2.0m	2.0Ø	2.0	20	50	200k§Δ	300m		A	MT36	F
105	2N538A	455m§	34 Ø	#J	3.5 Ø	500m	80	28	60	2.0m					200k§Δ	300m		A	MT36	F
106	2N539	455m§	34 Ø	#J	3.5 Ø	500m	80	28	55	2.0m	2.0Ø	2.0	30	75	200k§Δ	300m		A	MT36	F
107	2N539A	455m§	34 Ø	#J	3.5 Ø	500m	80	28	55	2.0m					200k§Δ	300m		A	MT36	F
108	JAN2N539AM	455m§	11 Ø	#J	4.9 Ø	700m	80	28	55	2.0m	2.0Ø	2.0	30	75	300k§Δ				MT36	
109	JAN2N539M	455m§	11 Ø	#J	4.9 Ø	700m	80	28	55	2.0m	2.0Ø	2.0	30	75	300k§Δ				MT36	
110	2N540	455m§	34 Ø	#J	3.5 Ø	500m	80	28	55	2.0m	2.0Ø	2.0	45	115	200k§Δ	300m		A	MT36	F

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N540A	455m§	34 Ø	#J	3.5 Ø	500m	80	28	55	2.0m					200k§Δ	300m		A	MT36	F
2	2N1202	455m§	34 Ø	#J	3.5 Ø	500m	80	28	60	2.0m	2.0Ø	500m	40	120	200k§Δ	600m		A	MT36	F
3	2N1203	455m§	34 Ø	#J	3.5 Ø	500m	120	28	70	2.0m	2.0Ø	2.0	25	75	200k§Δ	300m		A	MT36	F
4	2N1261	455m§	34 Ø	#J	3.5 Ø	500m	80	28	45	2.0m	2.0Ø	2.0	20	50	200k§Δ	300m		A	MT36	F
5	2N1262	455m§	34 Ø	#J	3.5 Ø	500m	80	28	45	2.0m	2.0Ø	2.0	30	75	200k§Δ	300m		A	MT36	F
6	2N1263	455m§	34 Ø	#J	3.5 Ø	500m	80	28	45	2.0m	2.0Ø	2.0	45	113	200k§Δ	300m		A	MT36	F
7	2N1501	455m§	34 Ø	#J	3.5 Ø	500m	60	28	40	2.0m	2.0Ø	2.0	25	100	200k§Δ	300m		A	MT36	F
8	2N1502	455m§	34 Ø	#J	3.5 Ø	500m	40	28	40	2.0m	2.0Ø	2.0	25	100	200k§Δ	300m		A	MT36	F
9#	2SB449	455m	22 Ø	#J	3.5	500m	50	20		3.0mØ		3.0 Δ	20	85	10k			A	TO3	
10	CA2D2	455m	10 Ø§	#J	3.5 Ø	500m	20	12		4.0m	2.0Ø	2.0	20		200kt Δ	300m			MT36	
11	2N234A	500mØ		#J	3.0	.15			30			50	25 Ø						TO3	CØ
12	2N235A	500m	25 Ø	#J	3.0 Ø	150m	50	15	40 §	1.0mØ		500m	40 Ø			800m		A	TO3	CØ
13	2N235B	500m	25 Ø	#J	3.0 Ø	150m	50	15	40 §	1.0mØ		500m	60 Ø			800m		A	TO3	CØ
14	2N236A	500mØ		#J	3.0	.15	50		40	1.0mØ		.75	40 Ø			.33			TO3	CØ
15	2N236B	500mØ		#J	3.0	.15	50		40	1.0mØ		.75	60 Ø			.33			TO3	CØ
16	2N297A	500m	35	#J	4.0 Ø	1.0	60	40	40	3.0m	2.0	5.0	40	100	12k	.50	5.0u	AΔ	TO3	CØ
17	2N399	500mØ		#J	3.0	.15			40	1.0m		.75	40 Ø		400k	.83			TO3	CØ
18	2N400	500mØ		#J	3.0	.15	50		40	2.0mØ		1.0	50 Ø		500kt	.33			TO3	CØ
19	2N401	500mØ		#J	3.0	.15			40	1.0mØ		.50	40 Ø		400kt	.83			TO3	CØ
20	2N418†	500mØ		#J	5.0	.50	100		80	1.5mØ	2.0Ø	4.0	40	50 Ø	400kt	.50	15u		TO3	CØ
21	2N419	500mØ	25 Ø	#J	3.0	150m	55		45	1.0m	1.5Ø	2.2	9.0	44	300kt	1.5		AΔ	TO3	CØ
22	2N420†	500mØ		#J	5.0	.50	65		45	1.5mØ	2.0Ø	4.0	40	50 Ø	400kt	.50	15u		TO3	CØ
23	2N420A†	500mØ		#J	5.0	.50	90		70	.50mØ	2.0Ø	4.0	40	50 Ø	400kt	.50	15u		TO3	CØ
24	2N553	500m	35	#J	4.0 Ø	1.0	80	40	40	2.0m	2.0	.50	40	80	25k	.30	5.0u	AΔ	MD1	
25	2N637†	500m#	25	#J	5.0	.50			40	1.0mØ	5.0Ø	3.0	30	60			15u☑		TO3	CØ
26	2N637A†	500m#	25	#J	5.0	.50			70	5.0mØ	5.0Ø	3.0	30	60			15u☑		TO3	CØ
27	2N637B†	500m#	25	#J	5.0	.50			80	5.0mØ	5.0Ø	3.0	30	60			15u☑		TO3	CØ
28	2N638†	500m#	25	#J	5.0	.50			40	1.0mØ	5.0Ø	3.0	20	40			15u☑		TO3	CØ
29	2N638A†	500m#	25	#J	5.0	.50			70	5.0mØ	5.0Ø	3.0	20	40			15u☑		TO3	CØ
30	2N638B†	500m#	25	#J	5.0	.50			80	5.0mØ	5.0Ø	3.0	20	40			15u☑		TO3	CØ
31	2N639†	500m#	25	#J	5.0	.50			40	1.0mØ	5.0Ø	3.0	15	30			15u☑		TO3	CØ
32	2N639A†	500m#	25	#J	5.0	.50			70	5.0mØ	5.0Ø	3.0	15	30			15u☑		TO3	CØ
33	2N639B†	500m#	25	#J	5.0	.50			80	5.0mØ	5.0Ø	3.0	15	30			15u☑		TO3	CØ
34	2N663	500m		#J	4.0		50	20	25	12m	2.0Ø	.50	25	75	15k			A	TO3	CØ
35	2N665	500m	35	#J	5.0 Ø	1.0	80	40	40	2.0m	2.0	.50	40	80	20kΔ	.30	5.0u	AΔ	TO3	CØ
36	JAN2N665	500m	35 Ø	#S	5.0 Ø		80	40	40	10m	2.0Ø	500m	40	80	20kΔ	300m			TO3	CØ
37	2N1138	500mØ		#J	5.0	.50			40		5.0Ø	3.0	100	200					TO3	CØ
38	2N1138A	500mØ		#J	5.0	.50			70		5.0Ø	3.0	100	20					TO3	CØ
39	2N1138B	500mØ		#J	5.0	.50			80		5.0Ø	3.0	100	200					TO3	CØ
40	2N1971	500mØ	38 Ø	#J	4.0 Ø	1.0	80	40	40	20m	2.0Ø	500m	25	60	5.0kΔ	300m			TO3	CØ
41	2N2061	500m	75		3.0		20	6.0	15 Ø	10m	2.0Ø	2.0	10					A	TO3	CØ
42	2N2062	500m	75		3.0		20	6.0	15 Ø	10m	2.0Ø	2.0	20					A	TO3	CØ
43	2N2063	500m	75		3.0		40	20	30 Ø	20m	2.0Ø	2.0	10					A	TO3	CØ
44	2N2064	500m	75		3.0		40	20	30 Ø	20m	2.0Ø	2.0	20					A	TO3	CØ
45	2N2065	500m	75		3.0		80	30	60 Ø	20m	2.0Ø	2.0	10					A	TO3	CØ
46	2N2066	500m	75		3.0		80	30	60 Ø	20m	2.0Ø	2.0	20					A	TO3	CØ
47	2N2266	500m	50 Ø	♦J	5.0	700m	100	28	55	2.0mØ	2.0Ø	2.0	25	75	200k§	150m	8.0u	A	MT36	A
48	2N2267	500m	50 Ø	♦J	5.0	700m	120	28	55	2.0mØ	2.0Ø	2.0	25	75	200k§	150m	8.0u	A	MT36	A
49	2N2268	500m	50 Ø	♦J	5.0	700m	100	28	55	2.0mØ	2.0Ø	2.0	25	75	200k§	150m	8.0u	A	MT36	A
50	2N2269	500m	50 Ø	♦J	5.0	700m	120	28	55	2.0mØ	2.0Ø	2.0	25	75	200k§	150m	8.0u	A	MT36	A
51	2N2836	500m	30	#C	3.5	.50	55	20	55 §	.05mØ	0.0	1.0 Δ	30	100	500k§			A	TO3	CØ
52	2N3154	500m	38 Ø	#C	3.0	2.0	40	30	25	100uØ	2.0Ø	500m	60	180	15kΔ	500m	10u☑	AΔ	MS7	Ø
53	2N3155	500m	38 Ø	#C	3.0	2.0	60	30	40	100uØ	2.0Ø	500m	60	180	15kΔ	500m	10u☑	AΔ	MS7	Ø
54	2N3156	500m	38 Ø	#C	3.0	2.0	80	30	55	100uØ	2.0Ø	500m	60	180	15kΔ	500m	10u☑	AΔ	MS7	Ø
55	2N3157	500m	38 Ø	#C	3.0	2.0	100	30	65	100uØ	2.0Ø	500m	60	180	15kΔ	500m	10u☑	AΔ	MS7	Ø
56	2N3158	500m	38 Ø	#C	3.0	2.0	40	30	25	100uØ	2.0Ø	500m	30	75	10kΔ	470m	10u☑	AΔ	MS7	Ø
57	2N3159	500m	38 Ø	#C	3.0	2.0	60	30	40	100uØ	2.0Ø	500m	30	75	10kΔ	470m	10u☑	AΔ	MS7	Ø
58	2N3160	500m	38 Ø	#C	3.0	2.0	80	30	55	100uØ	2.0Ø	500m	30	75	10kΔ	470m	10u☑	AΔ	MS7	Ø
59	2N3161	500m	38 Ø	#C	3.0	2.0	100	30	65	100uØ	2.0Ø	500m	30	75	10kΔ	470m	10u☑	AΔ	MS7	Ø
60	2N4241	500m	37 Ø	#C	5.0		32	20	20	45u	1.0	300m	60	300	5.0k	70m			TO3	CØ
61#	2SB137	500m	30 Ø	#J	5.0		30	15	25 §	500uØ	1.5Ø	1.0	30	250				A	TO3	CØ
62#	2SB138	500m	30 Ø	#J	5.0		60	30	35 §	500uØ	1.5Ø	1.0	30	250				A	TO3	CØ
63#	2SB138A	500m	30 Ø	#J	5.0		80	30	40 §	500uØ	1.5Ø	1.0	30	250				A	TO3	CØ
64#	2SB138B	500m	30 Ø	#J	5.0		80	30	60 §	500uØ	1.5Ø	1.0	30	250				A	TO3	CØ
65#	2SB342	500m	30	ØJ	6.0		120	1.0	120 §	5.0m	1.5Ø	5.0	25	250	1.0Mt	.06 ▼		D	TO3	
66#	2SB343	500m	30	ØJ	6.0		150	1.0	150 §	5.0m	1.5Ø	5.0	25	250	1.0Mt	.06 ▼		D	TO3	
67#	2SB375	500m	30	ØJ	9.0		150	1.0	150 §	5.0m	1.5Ø	8.0	25	250	1.0Mt	.06 ▼		D	TO3	
68#	2SB390	500m	30	ØJ	6.0		80	1.0	80 §	5.0m	1.5Ø	5.0	25	250	1.0Mt	.06 ▼		D	TO3	
69#	2SB391	500m	30	ØJ	6.0		50	1.0	50 §	5.0m	1.5Ø	3.0	25	350	1.0Mt	.06 ▼		D	TO3	
70#	2SB424	500m	30 Ø	#J	3.0		80	40	80	160uØ	1.5Ø	1.0	34	80	300kt			A	TO3	
71#	2SB425	500m	30 Ø	#J	7.0		60	12	60 §	160uØ	1.5Ø	1.0	34	115	400kt			A	TO3	
72#	2SB426	500m	30 Ø	#J	7.0		32	12	32 §	160uØ	1.5Ø	1.0	34	80	400kt			A	TO3	
73#	AD103	500m	23 Ø	#J	15		50	10	32	10m	.50Ø	500m	30	75 Ø	200kt	30m	12u	AΔ		
74#	AD104	500m	23 Ø	#J	10		65	20	45	10m	.50Ø	500m	28	70 Ø	200kt	50m	12u	AΔ		
75#	AD105	500m		#J	8.0		85		60	10m	.50Ø	.50	25	40 Ø						
76#	AD149	500m☑	22 Ø	#J	3.5			20	30		1.0Ø	1.0	30	100	500k§			A	TO3	
77#	AD166	500m	27 Ø	#J	5.0	1.0	60	1.0	40	1.0mØ	2.0Ø	1.0	40	250	3.0M§				TO3	
78#	AD167	500m	27 Ø	#J	5.0	1.0	75	1.5	50	1.0mØ	2.0Ø	1.0	100	250	4.0M§				TO3	
79#	AU101	500m	10 Ø	#J	10	2.0	120	1.0	120	10m	2.0Ø	5.0	30 Ø		400k§	100m	2.6u#	D	TO3	
80#	AU102	500m	10 Ø	#J	10	2.0	40	1.0	40	10m	2.0Ø	5.0	17 Ø		400k§	100m	3.9u#	D	TO3	
81#	AU105†	500m	27 Ø	#J	10	3.0	130	1.0	60	500uØ	2.0Ø	5.0	50	200	5.0M§		900n		TO3	
82	B1085	500mØ		#	10		120	1.5	120	10mØ	2.0Ø	5.0	40 Ø		1.5Mt	.15		D	TO3	A
83	B10474	500m	40 Ø	♦J	10		60		40	2.0m	10Ø	100m	50	400				DAΔ	TO3	CØ
84	LT5052	500m		#J	4.5	.60	30	15	30	2.0m	2.0Ø	.75	30		100kt	1.0			TO13	FØ
85	LT5053	500m		#J	4.5	.60	30	15	30	2.0m	2.0Ø	.75	30		100kt	1.0			TO10	FØ
86	LT5055	500m		#J	4.5	.60	30	15	30	2.0m	2.0Ø	.75	60		100kt	1.0			TO13	FØ
87	LT5056	500m		#J	4.5	.60	30	15	30	2.0m	2.0Ø	.75	60		100kt	1.0			TO10	FØ
88	LT5058	500m		#J	4.5	.60	30	15	30	2.0m	2.0Ø	.75	100		100kt	1.0			TO13	FØ
89	LT5059	500m		#J	4.5	.60	30	15	30	2.0m	2.0Ø	.75	100		100kt	1.0			TO10	FØ
90	LT5061	500m		#J	4.5	.60	60	15	60	2.0m	2.0Ø	.75	30		100kt	1.0			TO13	FØ
91	LT5062	500m		#J	4.5	.60	60	15	60	2.0m	2.0Ø	.75	30		100kt	1.0			TO10	FØ
92	LT5064	500m		#J	4.5	.60	60	15	60	2.0m	2.0Ø	.75	60		100kt	1.0			TO13	FØ
93	LT5065	500m		#J	4.5	.60	60	15	60	2.0m	2.0Ø	.75	60		100kt	1.0			TO10	FØ
94	LT5067	500m		#J	4.5	.60	60	15	60	2.0m	2.0Ø	.75	100		100kt	1.0			TO13	FØ
95	LT5068	500m		#J	4.5	.60	60	15	60	2.0m	2.0Ø	.75	100		100kt	1.0			TO10	FØ
96	LT5070	500m		#J	4.5	.60	80	15	75	2.5m	2.0Ø	.75	30		100kt	1.0			TO13	FØ
97	LT5071	500m		#J	4.5	.60	80	15	75	2.5m	2.0Ø	.75	30		100kt	1.0			TO10	FØ
98	LT5073	500m		#J	4.5	.60	80	15	75	2.5m	2.0Ø	.75	60		100kt	1.0			TO13	FØ
99	LT5074	500m		#J	4.5	.60	80	15	75	2.5m	2.0Ø	.75	60		100kt	1.0			TO10	FØ
100	LT5076	500m		#J	4.5	.60	80	15	75	2.5m	2.0Ø	.75	100		100kt	1.0			TO13	FØ
101	LT5077	500m		#J	4.5	.60	80	15	75	2.5m	2.0Ø	.75	100		100kt	1.0			TO10	FØ
102	LT5079	500m		#J	4.5	.60	100	15	90	2.5m	2.0Ø	.75	30		100kt	1.0			TO13	FØ
103	LT5080	500m		#J	4.5	.60	100	15	90	3.0m	2.0Ø	.75	30		100kt	1.0			TO10	FØ
104	LT5082	500m		#J	4.5	.60	100	15	90	3.0m	2.0Ø	.75	60		100kt	1.0			TO13	FØ
105	LT5083	500m		#J	4.5	.60	100	15	90	3.0m	2.0Ø	.75	60		100kt	1.0			TO10	FØ
106	LT5085	500m		#J	4.5	.60	100	15	90	3.0m	2.0Ø	.75	100		100kt	1.0			TO13	FØ
107	LT5086	500m		#J	4.5	.60	100	15	90	3.0m	2.0Ø	.75	100		100kt	1.0			TO10	FØ
108#	OC25	500m	23 Ø	#J	4.0		40		40			1.0	15	80					TO3	
109#	SFT190	500m	30 Ø	#S	3.0 †				15† 65 §*	2.0mØ	2.0Ø	1.0	45	70 Ø	400k§	330m			TO3	Ø
110#	SFT192	500m	30 Ø	#J	3.0				15 45	2.0mØ	2.0Ø	500m	30	50 Ø	400k§	500m		A	TO3	Ø

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	L C E O A D D E
1#	SFT212	500m	30 Ø	#S	3.0	500m	30	7.5		1.0m	2.0Ø	2.0	20	150	200kΔ†			A	TO3	CØ
2#	2SB468A	526m	32 Ø	#J	10	10 Ø	270	1.5	90	500uØ	1.5Ø	4.0 Ø	14	130			1.5u#	D	TO3	AØ
3	2N1430	588mØ		♦J	10		100		100			5.0	30	120	1.5Mt			DA	TO41	CØ
4	2N5155†	638m	60 Ø	♦J	15	5.0	140	1.5	120	10m#	2.0Ø	8.0	25	100	150k§Δ	40m	18u		TO3	CØ
5	2N257	666m	45 Ø	#J	3.0	2.0	40	10	35 Ø	2.0m	2.0Ø	2.0	40 Ø		5.0kΔ	750m		A	TO3	CØ
6	2N257B	666m	45 Ø	#J	3.0	2.0	40	20	35 Ø	5.0m	2.0Ø	2.0	50 Ø		5.0kΔ	500m		A	TO3	CØ
7	2N257G	666m	45 Ø	#J	3.0	2.0	40	20	35 Ø	5.0mΔ	2.0Ø	2.0	40 Ø		5.0kΔ	750m		A	TO3	CØ
8	2N257W	666m	45 Ø	#J	3.0	2.0	40	20	35 Ø	5.0mΔ	2.0Ø	2.0	60 Ø		5.0kΔ	500m		A	TO3	CØ
9	2N268	666m	45 Ø	#J	3.0	2.0	80	40	60 Ø	2.0m	2.0Ø	2.0	40 Ø		6.0kΔ	1.0		A	TO3	CØ
10	2N268A	666m	45 Ø	#J	3.0	2.0	80	20	60 Ø	2.0m	2.0Ø	2.0	80			500m		AΔ	TO3	CØ
11	2N297	666mØ	45 Ø	#J	5.0 Ø	2.0	60	9.0	50 Ø	5.0m	3.0Ø	2.0	12	40	5.0kt Δ			A	TO3	CØ
12	JAN2N297A	666m	50 Ø	#S		5.0 Ø	80	40	40	3.0m	2.0Ø	500m	40	100	5.0kΔ	350m			MD6a	A
13	2N307	666m	50 Ø	#J	5.0		35	10	35	5.0mØ	1.0Ø	200m	20	30 Ø	3.0kΔ	500m		A	TO3	CØ
14	2N307A	666m	50 Ø	#J	5.0		35	10	35	2.0mØ	1.0Ø	200m	30	35 Ø	3.5kΔ	800m		A	TO3	CØ
15	JAN2N463	666m	50 Ø	#S	5.0 Ø	1.0	60	50		300uØ	2.0Ø	2.0	20	60	5.0kΔ	80m			TO32	A
16	2N1011	666m	45 Ø	#J	5.0 Ø	1.0	80	40	40	20m	2.0	3.0	30	75	5.0kΔ	500m	5.0u	A	TO3	CØ
17	JAN2N1011	666m	50 Ø	#S	5.0 Ø		80	40	40	10m	2.0Ø	3.0	30	75	5.0kΔ	500m			TO3	C
18	2N1120	666m	45 Ø	#J	15 Ø	1.0	80	40	70 Ø	15m	2.0Ø	10	20	50	3.0kΔ	100m		AΔ	TO41	CØ
19	2N1666	666mØ*	30 Ø	#J	6.0	1.0	80	40	60	100uØ	1.0Ø	6.0	15	30	250kt		20u	AΔ	MD3	
20	2N1667	666mØ*	30 Ø	#J	6.0			2.0	32	100uØ		6.0		90 Ø	200kt			AΔ	MD3	
21	2N1668	666mØ*	30 Ø	#J	6.0			2.0	32	100uØ		6.0		50 Ø	200kt			AΔ	MD3	
22	2N1669	666mØ*	30 Ø	#J	6.0			2.0	32	100uØ		6.0		70 Ø	200kt			AΔ	MD3	
23	2N1905	666m	50 Ø	#J	10	3.0	60	1.0	40	500uØ	2.0Ø	1.0	50	150	75k	1.0	100n	D	TO3	CØ
24	2N1906	666m	50 Ø	#J	10	3.0	100	1.0	40	500uØ	2.0Ø	5.0	75	200	75k	200m	100n	D	TO3	CØ
25	2N2147	666m	12	#J	5.0	1.0	75	1.5	50	1.0mØ	2.0Ø	1.0	100	150 Ø	4.0M§			D	TO3	CØ
26	2N2148	666m	12	#J	5.0	1.0	60	1.0	40	1.0mØ	2.0Ø	1.0	40	80 Ø	4.0M§			D	TO3	CØ
27	2N2869	666m#	30 Ø	#J	10	3.0	60	10	50		2.0Ø	1.0	50	165	4.0k	250m		A	TO3	CØ
28	2N2869/2N301	666m#	30 Ø	#J	10	3.0	60	10	50		2.0Ø	1.0	50	165	4.0k	250m		A	TO3	CØ
29	2N2870	666m#	30 Ø	#J	10	3.0	80	10	50		2.0Ø	1.0	50	165	4.0k	100m		A	TO3	CØ
30	2N2870/2N301A	666m#	30 Ø	#J	10	3.0	80	10	50		2.0Ø	1.0	50	165	4.0k	100m		A	TO3	
31#	2SB41	666m	44 Ø	#J	1.2		40	12	32 Ø	2.0mØ	1.5Ø	1.0	35	160	5.0k			A	TO3	
32#	2SB42	666m	44 Ø	#J	1.2		60	12	50 Ø	2.0mØ	1.5Ø	1.0	35	160	5.0k			A	TO3	
33#	2SB151	666m	50 Ø	#J	5.0	5.0 Ø	80	60	60 §	500uØ	1.5Ø	3.0	30	75	5.0k	200m		A	TO3	
34#	2SB152	666m	50 Ø	#J	5.0	5.0 Ø	100	60	80 §	500uØ	1.5Ø	3.0	30	75	5.0k	200m		A	TO3	
35#	2SB295	666mØ*	40 Ø	#J	5.0		100	40	65 §	3.0m	1.0Ø	1.0	30	120	4.5k	200m		A	TO3	
36#	2SB309	666m	43 Ø	#J	8.0		75	1.0		220uØ	1.0Ø	1.0	30	125	17k			D	TO3	
37#	2SB310	666m	43 Ø	#J	8.0		140	1.0		220uØ	1.0Ø	1.0	30	125	17k	110m		D	TO3	
38#	2SB318	666m	50 Ø	#J	5.0	5.0 Ø	60	1.0	40 §	1.0mØ	2.0Ø	1.0	40	200	2.0M§			D	TO3	
39#	2SB319	666m	50 Ø	#J	5.0	5.0 Ø	100	1.0	60 §	1.0mØ	2.0Ø	1.0	40	200	3.0M§			D	TO3	
40#	2SB320	666m	50 Ø	#J	10	10 Ø	100	2.0	60 §	1.0mØ	2.0Ø	1.0	40	200	2.0M§	100m	1.6u	D	TO3	
41#	2SB432	666m	50 Ø	#J	5.0	5.0 Ø	150	2.0	100 §	1.0mØ	2.0Ø	5.0	40	170	3.0M§	100m		D	TO3	
42	40022	666m♦	12 Ø	#J	5.0	1.0	32	5.0	32 §	1.0m	2.0Ø	1.0	38	70 Ø	300k§			A	TO3	CØ
43	40050	666m♦	12 Ø	#J	5.0	1.0	40	5.0	40	500uØ	2.0Ø	1.0	50	90	500k§			A	TO3	CØ
44	40051	666m♦	12 Ø	#J	5.0	1.0	50	5.0	50	500uØ	2.0Ø	1.0	50	90	500k§			A	TO3	CØ
45	40254	666m♦	12 Ø	#J	5.0	1.0	32	5.0	32 §	3.0m	2.0Ø	1.0	30	70 Ø	300k§			A	TO3	CØ
46	40421	666m♦	12 Ø	#J	5.0	1.0	75	1.5	50	1.0mØ	2.0Ø	1.0	62	175	2.0M§Δ			D	TO3	A
47	40439	666m#	5.0 Ø	#J	10	4.0	320	2.0	320 Ø	200uØ						250m	750n†	D	TO3	CØ
48	40440	666m#	5.0 Ø	#J	10	4.0	200	2.0	200 Ø	200uØ						120m	1.2ut	D	TO3	CØ
49	40462	666m§	12 Ø	#J	5.0	1.0	40 †	5.0†	40	500u♦Ø	2.0Ø	1.0	50	90 Ø	600k§	200m		A	TO3	CØ
50#	AD130	666m*	30 Ø	#J	3.0	500m	32	10	30		1.0Ø	1.0	20	100	350k§			A	TO3	
51#	AD131	666m*	30 Ø	#J	3.0	500m	64	20	45		1.0Ø	1.0	20	100	350k§			A	TO3	
52#	AD132	666m*	30 Ø	#J	3.0	500m	80	20	60		1.0Ø	1.0	20	100	350k§			AΔ	TO3	
53#	AD133	666m*	30 Ø	#J	15	2.0	50	10	32		.5Ø	5.0	20	60	300k§		25uØ	AΔ	TO41	
54#	AD140	666mt	35 Ø	#J	3.0	500m	55	10	55	100uØ	1.0Ø	1.0	30	100	4.5k			A	TO3	Ø
55#	AD142	666m	30 Ø	#J	10	3.0	80	10	80 Ø	100uØ	2.0Ø	1.0	30	170	450k§			A	TO3	
56#	AD143	666m	30 Ø	#J	10	3.0	40	10	40 Ø	100uØ	2.0Ø	1.0	30	170	450k§			A	TO3	
57#	AD145	666m	30 Ø	#J	10	3.0	15	10		160uØ	2.0Ø	1.0	30	170	450k§			A	TO3	
58#	AD150	666mØ	30 Ø	#J	3.5	500m	32	10	30		1.0Ø	1.0	30	100	450k§			A	TO3	
59#	AD163	666m	30 Ø	#J	3.0		100	20	80	150uØ	1.0Ø	1.0	13 †	60 †	350k§				TO3	
60#	ADY27	666m#	30 Ø	#J	3.5	500m	32	10	30		1.0Ø	1.0	30	100	450k§			A	TO3	
61#	AL100	666m	30 Ø	#J	10	3.0	130	2.0	130 Ø	100uØ	2.0Ø	1.0	40	250	4.0M§			D	TO3	
62#	AL101	666m	30	†J	10	3.0	60	1.0	40	500uØ	2.0Ø	1.0 Δ	90 Ø		7.5M	1.0	100n	DΔ	TO3	
63#	AL102	666m	30 Ø	#J	6.0	1.0	130	2.0	130 Ø	100uØ	2.0Ø	1.0	40	250	4.0M§			D	TO3	
64#	AL103	666m	30 Ø	#J	6.0	1.0	100	1.5	130 Ø	100uØ	2.0Ø	1.0	40	250	3.0M§			D	TO3	
65#	ASZ15†	666mØ	30 Ø	#J	6.0	1.0	80	40	60	100uØ	1.0	1.0	20	55	250kt		20u	A	TO3	
66#	AT450%	666m*	23 Ø	#J	10	10 Ø	430	2.0	160	5.0m	1.0Ø	6.0	15			250m		DΔ	TO3	
67#	AT1138	666m	44 Ø	#J	10	1.0	40	20	35	2.0mØ	1.0Ø	1.0	66	200	300k§	1.0		A	TO3	CØ
68#	AT1138A	666m	44 Ø	#J	10	1.0	60	20	45	2.0mØ	1.0Ø	1.0	66	200	300k§	1.0		A	TO3	CØ
69#	AT1138B	666m	44 Ø	#J	10	1.0	80	20	55	2.0mØ	1.0Ø	1.0	66	200	300k§	1.0		A	TO3	CØ
70#	AT1833	666m	44 Ø	#J	10	1.0	40	20	35	2.0mØ	1.0Ø	1.0	45	95	400kt			A	TO3	CØ
71#	AT1834	666m	44 Ø	#J	10	1.0	40	20	35	2.0mØ	1.0Ø	1.0	75	165	400kt			A	TO3	CØ
72#	AU103†	666m	10 Ø♦	#J	10	2.5	155	4.0	155 #	10m	1.0Ø	10	15		15M§		1.7u	AD	TO3	
73#	AU104	666m§	15 Ø	#J	12	2.5	185	4.0	185 #	10m	1.0Ø	12	14		15M§		1.8u	AD	TO3	Ø
74#	AU106	666m	5.0 Ø	#J	10	4.0	320	2.0	320 Ø	200uØ	1.3Ø	6.0	15	80	2.0M§			D	TO3	
75#	AU107	666m	30 Ø	*J	10	1.0	200	2.0	200 Ø	200uØ	2.0Ø	700m	35	120	2.0M§			D	TO3	
76#	AU108	666m	30 Ø	*J	10	1.0	100	2.0	100 Ø	200uØ	2.0Ø	700m	35	200				D	TO3	
77#	AU110	666m	30 Ø	#J	10	3.0	160	2.0	160 Ø	100uØ	2.0Ø	1.0	20	90				D	TO3	
78#	AU111	666m	5.0 Ø	#J	10	4.0	320	2.0	320 Ø	200uØ	1.3Ø	6.0	15	80	2.0M§			D	TO3	
79#	AU112	666m	5.0 Ø	#J	10	4.0	320	2.0	320 Ø	200uØ	1.3Ø	6.0	15	40	2.0M§			D	TO3	
80#	AUY19	666m*	30 Ø	#J	3.0		64	20	45		1.0Ø	1.0	20	100	350k§		10uØ	AΔ	TO3	
81#	AUY20	666m*	30 Ø	#J	3.0		80	20	60		1.0Ø	1.0	20	100	350k§		10uØ	AΔ	TO3 •	
82#	AUY21	666m*	30 Ø	#J	10		65	20	45 §		.5Ø	5.0	13	60	300k§		12uØ	AΔ	TO41	
83#	AUY21A	666m	36 *		10	2.0	65	20	45		.5Ø	5.0	12	60	300k§			A	TO3	
84#	AUY22	666m*	30 Ø	#J	8.0		80	20	60 §		.5Ø	5.0	13	40	300k§		12uØ	AΔ	TO41	
85#	AUY22A	666m	36 *		8.0	1.5	80	20	60		.5Ø	5.0	12	60	300k§			A	TO3	
86#	AUY28	666m	30 Ø	#J	6.0	1.5	90	24	65	1.5m	1.5Ø	5.0	20	33 Ø	80k		10u	A	TO3	
87#	AUY29	666m*	36 Ø	#J	15		50	10	32 §	1.0m	.5Ø	5.0	20	60	300k§		12uØ	AΔ	TO41	
88#	AUY34	666m	30 Ø	#J	3.0	500m	100	20	80						350k§	500m			TO3	
89	B10912	666mØ	30 Ø	#J	3.0		35		40 §	2.0m	2.0Ø	1.0	50						TO3	CØ
90	B10913	666mØ	30 Ø	#J	3.0		35		40 §	2.0m	2.0Ø	1.0	100						TO3	CØ
91	CDT1309	666m	45 Ø	#J	3.0	2.0	40	10	35 Ø	2.0m						750m			TO3	A
92	CDT1310†	666m	45 Ø	#J	5.0	2.0	40	35	35 Ø	5.0m	2.0Ø	2.0	40	120	8.0k	300m	3.5u	A	TO3	CØ
93	CDT1311†	666m	45 Ø	#J	5.0	2.0	60	35	50 Ø	5.0m	2.0Ø	2.0	40	120	8.0k	300m	3.5u	A	TO3	CØ
94	CDT1312†	666m	45 Ø	#J	5.0	2.0	80	35	65 Ø	5.0m	2.0Ø	2.0	40	120	8.0k	300m	3.5u	A	TO3	CØ
95	CDT1313†	666m	45 Ø	#J	5.0	2.0	100	35	75 Ø	5.0m	2.0Ø	2.0	40	120	8.0k	300m	3.5u	A	TO3	CØ
96	CDT1315†	666mØ	45 Ø	#J	8.0	300m	100		75	20m	2.0Ø	2.0	60	150				AΔ	TO3	A
97	CDT1319†	666m	45 Ø	#J	5.0	2.0	40	35	35 Ø	5.0m	2.0Ø	2.0	60		6.0k	300m	3.5u	A	TO3	CØ
98	CDT1320†	666m	45 Ø	#J	5.0	2.0	60	35	50 Ø	5.0m	2.0Ø	2.0	20	60	6.0k	300m	3.5u	A	TO3	CØ
99	CDT1321†	666m	45 Ø	#J	5.0	2.0	80	35	65 Ø	5.0m	2.0Ø	2.0	20	60	6.0k	300m	3.5u	A	TO3	CØ
100	CDT1322†	666m	45 Ø	#J	5.0	2.0	100	35	75 Ø	5.0m	2.0Ø	2.0	20	60	6.0k	300m	3.5u	A	TO3	CØ
101#	NKT420	666m	1.3	#J	5.0	1.0	120	50		150uØ	1.0Ø	1.0	30	90					MD17d	CØ
102#	NKT451	666m	1.3	#J	3.0	500m	36	10		150uØ	1.0Ø	1.0	50	150					MD17d	CØ
103#	NKT452	666m	1.3	#J	3.0	500m	36	10		150uØ	1.0Ø	1.0	30	90					MD17d	CØ
104#	NKT453	666m	1.3	#J	3.0	500m	36	10		150uØ	1.0Ø	1.0	15	45					MD17d	CØ
105#	OC20	666m*	30 Ø	#J	10	2.0	100	40	75	20mØ	1.0Ø	1.0	25	75	250k	160m	20u	AΔ	TO3	Ø
106#	OC28†	666mØ	30 Ø	#J	8.0	1.0	80	40	60	100uØ	1.0Ø	1.0	20	55	250kt		20u	AΔ	TO3	Ø
107#	OC29†	666mØ	30 Ø	#J	8.0	1.0	60	20	32	100uØ	1.0Ø	1.0	45	130	250kt		20u	AΔ	TO3	
108#	OC35†	666mØ	30 Ø	#J	8.0	1.0	60	20	32	100uØ	1.0Ø	1.0	25	75	250kt		20u	AΔ	TO3	

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M A X P	T E	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	OC36†	666mØ	30 Ø		#J	8.0	1.0	80	40	32	100uØ	1.0Ø	1.0	30	110	250kt		20u	AΔ	TO3	
2#	SFT213	666m	45 Ø		#S	3.0	500m	40	20	30	1.0m	2.0Ø	2.0	20	150	200kt	130m		A	TO3	CØ
3#	SFT214	666m	45 Ø		#S	3.0	500m	60	30	40	1.0m	2.0Ø	2.0	20	150	200kt△	130m		A	TO3	CØ
4#	SFT238	666m	45 Ø		#S	6.0	1.0	40	20	30	3.0m	2.0Ø	5.0	20	30 Ø	300kt	70m	6.0u	AΔ	TO3	CØ
5#	SFT239	666m	45 Ø		#S	6.0	1.0	60	30	40	3.0m	2.0Ø	5.0	20	30 Ø	300kt	70m	6.0u	AΔ	TO3	CØ
6#	SFT240	666m	45 Ø		#S	10	2.0	100	40	60	3.0m	2.0Ø	5.0	20	70	400k	40m	4.5u	AΔ	TO3	CØ
7#	SFT250	666m	45 Ø		#S	3.0	500m	80	40	60	1.0m	2.0Ø	2.0	20	150	200kt	130m		A	TO3	CØ
8	2N285A	667m			#J	3.0	.15			40	1.0mØ		.50	150 Ø			.50		DAΔ	TO3	CØ
9	2N285B	667m			#J	3.0	.15			40	1.0mØ		.50	150 Ø			.50		DAΔ	TO3	
10	2N561	667m	10		#J	5.0	20	80	60	65	3.0m	2.0Ø	4.0	20	50	650kt	.20	90u	AΔ	TO3	CØ
11	2N1007	667mØ			#	3.0		40	15	30	1.0mØ	14	.50	30 Ø		5.0kt	1.0			TO3	CØ
12	2N1227	667mØ			#	3.0		40	15	30	1.0mØ	14	.50	50 Ø		5.0kØ	1.0			TO3	CØ
13#	2SB126	667m			#J	3.5		32	10	16	.22mØ	1.0Ø	3.0	15	50				A	TO3	
14#	2SB127	667m			#J	3.5		32	10	16	.22mØ	1.0Ø	3.0	26	100				A	TO3	
15#	2SB128	667m			#J	6.0		80	40	40	.22mØ	1.0Ø	6.0	16	36				A	TO3	
16#	2SB128A	667m			#J	6.0		120	60	60	.22mØ	1.0Ø	6.0	16	36				A	TO3	
17#	2SB129	667m			#J	6.0		80	40	40	.22mØ	1.0Ø	6.0	30	80				A	TO3	
18#	AD138	667m			#J	8.0		40	10	25	1.0m	1.5Ø	5.0	25	42 Ø	5.5k			A	TO3	
19#	AD138/50	667m			#J	8.0		70	20	35	1.0m	1.5Ø	5.0	25	42 Ø	5.5k			A	TO3	
20#	ASZ16†	667mØ			#J	6.0	1.0	60	20	48	.10mØ	1.0	1.0	45 Ø	130	250kt		20u		TO3	
21#	ASZ17†	667mØ			#J	6.0	1.0	60	20	48	.10mØ	1.0	1.0	25 Ø	75	250kt		20u		TO3	
22#	ASZ18†	667m			#J	6.0	1.0	80	40	60	.10mØ	1.0	1.0	30 Ø	110	250k		20u	Δ	TO3	
23#	AUY37	667m	30 #			10	3.0	100	40	55	.10mØ	2.0Ø	1.0	30	110	450k§			A	TO3	
24	LT5088	667m			#J	6.0	.70	30	15	30	3.0m	2.0Ø	1.0	40		100kt	1.0			TO13	FØ
25	LT5089	667m			#J	6.0	.70	30	15	30	3.0m	2.0Ø	1.0	40		100kt	1.0			TO10	FØ
26	LT5091	667m			#J	6.0	.70	30	15	30	3.0m	2.0Ø	1.0	80		100kt	1.0			TO13	FØ
27	LT5092	667m			#J	6.0	.70	30	15	30	3.0m	2.0Ø	1.0	80		100kt	1.0			TO10	FØ
28	LT5094	667m			#J	6.0	.70	30	15	30	3.0m	2.0Ø	1.0	160		100kt	1.0			TO13	FØ
29	LT5095	667m			#J	6.0	.70	30	15	30	3.0m	2.0Ø	1.0	160		100kt	1.0			TO10	FØ
30	LT5097	667m			#J	6.0	.70	60	15	60	3.0m	2.0Ø	1.0	40		100kt	1.0			TO13	FØ
31	LT5098	667m			#J	6.0	.70	60	15	60	3.0m	2.0Ø	1.0	40		100kt	1.0			TO10	FØ
32	LT5100	667m			#J	6.0	.70	60	15	60	3.0m	2.0Ø	1.0	80		100kt	1.0			TO13	FØ
33	LT5101	667m			#J	6.0	.70	60	15	60	3.0m	2.0Ø	1.0	80		100kt	1.0			TO10	FØ
34	LT5103	667m			#J	6.0	.70	60	15	60	3.0m	2.0Ø	1.0	160		100kt	1.0			TO13	FØ
35	LT5104	667m			#J	6.0	.70	60	15	60	3.0m	2.0Ø	1.0	160		100kt	1.0			TO10	FØ
36	LT5106	667m			#J	6.0	.70	80	15	75	3.5m	2.0Ø	1.0	40		100kt	1.0			TO13	FØ
37	LT5107	667m			#J	6.0	.70	80	15	75	3.5m	2.0Ø	1.0	40		100kt	1.0			TO10	FØ
38	LT5109	667m			#J	6.0	.70	80	15	75	3.5m	2.0Ø	1.0	80		100kt	1.0			TO13	FØ
39	LT5110	667m			#J	6.0	.70	80	15	75	3.5m	2.0Ø	1.0	80		100kt	1.0			TO10	FØ
40	LT5112	667m			#J	6.0	.70	80	15	75	3.5m	2.0Ø	1.0	160		100kt	1.0			TO13	FØ
41	LT5113	667m			#J	6.0	.70	80	15	75	3.5m	2.0Ø	1.0	160		100kt	1.0			TO10	FØ
42	LT5115	667m			#J	6.0	.70	100	15	90	4.0m	2.0Ø	1.0	40		100kt	1.0			TO13	FØ
43	LT5116	667m			#J	6.0	.70	100	15	90	4.0m	2.0Ø	1.0	40		100kt	1.0			TO10	FØ
44	LT5118	667m			#J	6.0	.70	100	15	90	4.0m	2.0Ø	1.0	80		100kt				TO13	FØ
45	LT5119	667m			#J	6.0	.70	100	15	90	4.0m	2.0Ø	1.0	80		100kt				TO10	FØ
46	LT5121	667m			#J	6.0	.70	100	15	90	4.0m	2.0Ø	1.0	160		100kt	1.0			TO13	FØ
47	LT5122	667m			#J	6.0	.70	100	15	90	4.0m	2.0Ø	1.0	160		100kt	1.0			TO10	FØ
48	2N5324†	670m	56 Ø		♦J	10	3.0	250	4.0	150		2.0Ø	5.0	20	60	2.0M§△	50m	15uØ		TO3	CØ
49	2N5325†	670m	56 Ø		♦J	10	3.0	325	4.0	200		2.0Ø	5.0	20	60	2.0M§△	50m	15uØ		TO3	CØ
50	MP3730	670m	56 Ø		♦J	5.0		200	2.0	200 Ø	400uØ	4.0Ø	50m	10	200	1.0M§△	10		E	TO3	CØ
51	MP3731	670m	56 Ø		♦J	10		320	2.0	320 Ø	400 Ø	3.0Ø	6.0	15		1.0M§△	833m		E	TO3	CØ
52	2N456†	714m	50 Ø		#J	5.0	3.0	40	20	40	2.0m	1.5Ø	5.0	10	30 Ø		200m	26u	A	TO3	CØ
53	2N457†	714m	50 Ø		#J	5.0	3.0	60	20	60	2.0m	1.5Ø	5.0	10	30 Ø		200m	26u	A	TO3	CØ
54	2N458	714m	50 Ø		#J	5.0	3.0	80	20	80	2.0m	1.5Ø	5.0	10	30 Ø		200m	26u	A	TO3	CØ
55#	2SB447	714m	45 Ø		#J	6.0	6.0 Ø	220	3.0		500uØ	1.0Ø	6.0	15	50	1.5Mt	50m		D	TO3	
56#	2SB311	770m	50 Ø		#J	10		180	1.0		220uØ	1.0Ø	1.0	30	125	17k	110m		D	TO3	
57#	NKT401†	770m	1.3		#J	10	2.0	90	40	60	150uØ	1.0Ø	1.0	25	75	430kt	140m	10u		MD17d	CØ
58#	NKT402†	770m	1.3		#J	10	2.0	60	20	32	150uØ	1.0Ø	1.0	60	180	430kt	140m	16u		MD17d	CØ
59#	NKT403†	770m	1.3		#J	10	2.0	80	40	32	150uØ	1.0Ø	1.0	50	150	430kt	420m	16u		MD17d	CØ
60#	NKT404†	770m	1.3		#J	10	2.0	60	20	32	150uØ	1.0Ø	1.0	50	150	430kt	420m	16u		MD17d	CØ
61#	NKT405	770m	1.3		#J	5.0	1.0	60	20		150uØ	1.0Ø	1.0	100	200	430kt	420m			MD17d	CØ
62#	NKT406†	770m	1.3		#J	10	2.0	60	20	32	150uØ	1.0Ø	1.0	30	50	430kt	420m	15u		MD17d	CØ
63	2N378	833m	50 Ø		#J	5.0		20			500u	2.0Ø	2.0	15	40	5.0kΔ	500m	25u	A	TO3	CØ
64	2N379	833m	50 Ø		#J	5.0		40			500u	2.0Ø	2.0	20	70	5.0kΔ	500m	25u	A	TO3	CØ
65	2N380	833m	50 Ø		#J	5.0		30			500u	2.0Ø	2.0	30	70	8.0kΔ	500m	25u	A	TO3	CØ
66	2N459†	833m	50 Ø		#J	5.0		105			500uØ	2.0Ø	2.0	20	70	5.0kΔ	500m	25u	A	TO3	CØ
67	2N1136	833mØ			#J	6.0		60		30	1.0mØ	5.0Ø	3.0	50	100		.33	5.0u		TO3	CØ
68	2N1136A	833mØ			#J	6.0		90		55	1.0mØ	5.0Ø	3.0	50	100		.33	5.0u		TO3	CØ
69	2N1136B	833mØ			#J	6.0		100		65	1.0mØ	5.0Ø	3.0	50	100		.33	5.0u		TO3	CØ
70	2N1137	833mØ			#J	6.0		60		30	1.0mØ	5.0Ø	3.0	75	150		.33	5.0u		TO3	CØ
71	2N1137A	833mØ			#J	6.0		90		55	1.0mØ	5.0Ø	3.0	75	150		.33	5.0u		TO3	CØ
72	2N1137B	833mØ			#J	6.0		100		65	1.0mØ	5.0Ø	3.0	75	150		.33	5.0u		TO3	CØ
73	2N1159†	833m§	20 Ø		#J	5.0 Ø	1.0	80	20	60	8.0m	2.0Ø	3.0	30	75	10k		10u		TO3	CØ
74	2N1160†	833m§	20 Ø		#J	7.0 Ø	1.0	80	20	60	8.0m	2.0Ø	5.0	20	50	10k		10u		TO3	CØ
75	2N1314	833mØ	125		§J	3.5		32	10	16	100uØ	14Ø	30m	20	80	4.5k			A	MD3	
76	2N2137	833m	62 Ø		#J	3.0	3.0 Ø	30	15	20	2.0m	2.0Ø	500m	30	60	12kΔ	250m			TO3	CØ
77	2N2137A	833m	62 Ø		#J	3.0	3.0 Ø	30	15	20	2.0m	2.0Ø	500m	30	60	12kΔ	250m			TO3	CØ
78	2N2138	833m	63 Ø		#J	3.0		45	25	30	2.0m	2.0Ø	500m	30	60	12kΔ	250m		A	TO3	CØ
79	2N2138A	833m	62 Ø		#J	3.0	3.0 Ø	45	25	30	2.0m	2.0Ø	500m	30	60	12kΔ	250m			TO3	CØ
80	2N2139	833m	63 Ø		#J	3.0		60	30	45	2.0m	2.0Ø	500m	30	60	12kΔ	250m		A	TO3	CØ
81	2N2139A	833m	62 Ø		#J	3.0	3.0 Ø	60	30	45	2.0m	2.0Ø	500m	30	60	12kΔ	250m			TO3	CØ
82	2N2140	833m	63 Ø		#J	3.0		75	40	60	2.0m	2.0Ø	500m	30	60	12kΔ	250m		A	TO3	CØ
83	2N2140A	833m	62 Ø		#J	3.0	3.0 Ø	75	40	60	2.0m	2.0Ø	500m	30	60	12kΔ	250m			TO3	CØ
84	2N2141	833m	63 Ø		#J	3.0		90	45	65	2.0m	2.0Ø	500m	30	60	12kΔ	250m		A	TO3	CØ
85	2N2141A	833m	62 Ø		#J	3.0	3.0 Ø	90	45	65	2.0m	2.0Ø	500m	30	60	12kΔ	250m			TO3	CØ
86	2N2142	833m	62 Ø		#J	3.0	3.0 Ø	30	15	20	2.0m	2.0Ø	500m	50	100	12kΔ	250m			TO3	CØ
87	2N2142A	833m	62 Ø		#J	3.0	3.0 Ø	30	15	20	2.0m	2.0Ø	500m	50	100	12kΔ	250m			TO3	CØ
88	2N2143	833m	63 Ø		#J	3.0		45	25	30	2.0m	2.0Ø	500m	50	100	12kΔ	250m		A	TO3	CØ
89	2N2143A	833m	62 Ø		#J	3.0	3.0 Ø	45	25	30	2.0m	2.0Ø	500m	50	100	12kΔ	250m			TO3	CØ
90	2N2144	833m	63 Ø		#J	3.0		60	30	45	2.0m	2.0Ø	500m	50	100	12kΔ	250m		A	TO3	CØ
91	2N2144A	833m	62 Ø		#J	3.0	3.0 Ø	60	30	45	2.0m	2.0Ø	500m	50	100	12kΔ	250m			TO3	CØ
92	2N2145	833m	63 Ø		#J	3.0		75	40	60	2.0m	2.0Ø	500m	50	100	12kΔ	250m		A	TO3	CØ
93	2N2145A	833m	62 Ø		#J	3.0	3.0 Ø	75	40	60	2.0m	2.0Ø	500m	50	100	12kΔ	250m			TO3	CØ
94	2N2146	833m	63 Ø		#J	3.0		90	45	65	2.0m	2.0Ø	500m	50	100	12kΔ	250m		A	TO3	CØ
95	2N2146A	833m	62 Ø		#J	3.0	3.0 Ø	90	45	65	2.0m	2.0Ø	500m	50	100	12kΔ	250m			TO3	CØ
96	B1178	833mØ			♦	10		160	15	160	10mØ	2.0	5.0	40 Ø		1.0Mt	.15	2.0u	DA	TO3	A
97▼	JAN2N3791†	855m	150 Ø		§A	10	4.0	60	7.0	60	1.0m#	2.0Ø	1.0	50	150 #	4.0M§△		1.5uØ		TO3	CØ
98▼	JAN2N3792†	855m	150 Ø		§A	10	4.0	80	7.0	80	1.0m#	2.0Ø	1.0	50	150 #	4.0M§△		1.5uØ		TO3	CØ
99♦	2N3611	900m	85 Ø		♦C	7.0	2.0	40	20	30 Ø	5.0m	2.0Ø	3.0	35	70		83m			TO3	CØ
100♦	2N3612	900m	85 Ø		♦C	7.0	2.0	60	30	45 Ø	5.0m	2.0Ø	3.0	35	70		83m			TO3	CØ
101♦	2N3613	900m	85 Ø		♦C	7.0	2.0	40	20	30 Ø	5.0m	2.0Ø	3.0	60	120		83m			TO3	CØ
102♦	2N3614	900m	85 Ø		♦C	7.0	2.0	60	30	45 Ø	5.0m	2.0Ø	3.0	60	120		83m			TO3	CØ
103♦	2N3615	900m	85 Ø		♦C	7.0	2.0	80	40	60 Ø	5.0m	2.0Ø	3.0	30	60		83m			TO3	CØ
104♦	2N3616	900m	85 Ø		♦C	7.0	2.0	100	50	75 Ø	5.0m	2.0Ø	3.0	30	60		83m			TO3	CØ
105♦	2N3617	900m	85 Ø		♦C	7.0	2.0	80	40	60 Ø	5.0m	2.0Ø	3.0	45	90		83m			TO3	CØ
106♦	2N3618	900m	85 Ø		♦C	7.0	2.0	100	50	75 Ø	5.0m	2.0Ø	3.0	45	90		83m			TO3	CØ
107	2N250	909m	25 Ø		#J	3.0		30			1.0m	1.5Ø	500m	30	90 Ø		2.0		A	TO3	CØ
108	2N251	909m	25 Ø		#J	3.0		60			2.0m	1.5Ø	500m	30	90 Ø		2.0		A	TO3	CØ
109#	2SB433	909mØ	56 Ø		#J	15	15 Ø	70	40	60 §	4.0mØ	2.0Ø	5.0	30	120		60m		AA	TO36	
110#	2SB351	935m	70 Ø		#J	15	15 Ø	40	20	30	3.0mØ	2.0Ø	5.0	30	150	4.0k	59m		A	TO36	

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CONFIG
1#	2SB352	935m	70 Ø	#J	15	15 Ø	60	40	40	3.0mØ	2.0Ø	5.0	30	150	4.0k	59m		A	TO36	
2#	2SB353	935m	70 Ø	#J	15	15 Ø	80	40	50	3.0mØ	2.0Ø	5.0	30	150	4.0k	59m		A	TO39	
3#	2SB354	935m	70 Ø	#J	15	15 Ø	100	60	60	3.0mØ	2.0Ø	5.0	30	150	4.0k	59m		A	TO36	
4	2N301	1.0 §Ø	11 Ø	#S	1.5		40	10	40	3.0mØ	1.5	1.0		70				AΔ	TO3	CØ
5	2N301A	1.0 §Ø	11 Ø	#S	1.5		60	10	60	3.0mØ	1.5	1.0		70				AΔ	TO3	CØ
6	2N1046	1.0 #	50 Ø	#J	12	3.0	100	1.5	50	2.0mØ	1.5Ø	5.0	40		10M§Δ	80m		ADΔ	TO3	Ø
7	2N1046A	1.0 #	50 Ø	#J	12	3.0	130	1.5	50	2.0mØ	1.5Ø	5.0	40		15M§Δ	80m		ADΔ	TO3	CØ
8	2N1046B	1.0 #	50 Ø	#J	12	3.0	130	1.5	50	2.0mØ	1.5Ø	10	20		15M§Δ	90m		ADΔ	TO3	CØ
9	JAN2N1412	1.0	70 Ø	#J			100	60	65	6.0m	2.0Ø	5.0	25	50	5.0kΔ	50m			MT63	BØ
10	JAN2N1412A	1.0	70 Ø	#J			100	60	70	6.0m	2.0Ø	5.0	25	50	5.0kΔ	50m			MT63	BØ
11	2N2210	1.0			15		100	60	65	4.0m		5.0	25	50	10k	.05		A	TO36	CØ
12	2N2444	1.0	85		10	1.0	80	1.0	120 §	1.0mØ	2.0	3.0	75	120		.20			TO3	
13	2N2526†	1.0	85	♦S	10	5.0	80	5.0	80	3.0m	2.0Ø	3.0	20	50		.08	10u		TO3	CØ
14	2N2527†	1.0	85	♦S	10	5.0	120	5.0	120	3.0m	2.0Ø	3.0	20	50		.08	10u		TO3	CØ
15	2N2528†	1.0	85	♦S	10	5.0	160	5.0	160	3.0m	2.0Ø	3.0	20	50		.08	10u		TO3	CØ
16	2N2612	1.0	90 Ø	#J	15		65	30	65 #	15m	2.0Ø	10	85	250				A	TO3	CØ
17	2N2832†	1.0	85 Ø	♦C	20	5.0	80	2.0	50	10m	2.0Ø	10	25	100	10M§Δ	150m	4.0u		TO3	CØ
18	2N2833†	1.0	85 Ø	♦C	20	5.0	120	2.0	75	10m	2.0Ø	10	25	100	10M§Δ	150m	4.0u		TO3	CØ
19	2N2834†	1.0	85 Ø	♦C	20	5.0	140	2.0	100	10m	2.0Ø	10	25	100	10M§Δ	150m	4.0u		TO3	CØ
20	JAN2N2834†	1.0	85 Ø	♦J	20		160	2.0	100	10m	2.0Ø	10	25 #	100	10M§Δ	150m	4.0u		MD6e	CØ
21	2N2912†	1.0	75 Ø	♦A	25	3.0	15	1.5	5.0	10m#	2.0Ø	5.0	200	800	10M§Δ	20m	2.0u		R74	AØ
22#	2SB131	1.0	65 Ø	#J	1.5	1.5 Ø	40	12	32 Ø	2.0mØ	1.5Ø	1.0	35	160	5.0k			A	TO3	
23#	2SB131A	1.0	65	#J	8.0		40	12	32 Ø	2.0mØ	1.5Ø	1.0	40	160	5.0k	.20		A	TO3	
24#	2SB132	1.0	65 Ø	#J	1.5	1.5 Ø	60	12	50 Ø	2.0mØ	1.5Ø	1.0	35 *	160	5.0k			A	TO3	
25#	2SB132A	1.0	65	#J	8.0		60	12	50 Ø	2.0mØ	1.5Ø	1.0	40	160	5.0k	.20		A	TO3	
26#	2SB483	1.0	60 Ø	#J	15		80	40	60 Ø	5.0m	1.5	10	40	100 Ø	2.5k	30m		A	TO3	
27#	2SB484	1.0	60 Ø	#J	15		100	40	75 Ø	5.0m	1.5	10	40	100 Ø	2.5k	30m		A	TO3	
28#	2SB485	1.0	60 Ø	#J	15		140	40	85 Ø	5.0m	1.5	10	40	100 Ø	2.5k	30m		A	TO3	
29	3N45†	1.0	75 Ø	#J	12 Ø	500m	60	28	35	3.0m	2.0Ø	5.0	30	120	16k		3.0u	A	TO15	GB
30	3N46†	1.0	75 Ø	#J	12 Ø	500m	80	28	50	3.0m	2.0Ø	5.0	20	80	12k		6.0u	A	TO15	GB
31	3N47	1.0	75 Ø	#J	12 Ø	1.5	40	28	25	3.0m	2.0Ø	5.0	30	120	500kΔ	80m			TO15	GBØ
32	3N48	1.0	75 Ø	#J	12 Ø	1.5	60	28	40	3.0m	2.0Ø	5.0	20	80	300kΔ	80m			TO15	GBØ
33	B102000	1.0 #	45 Ø		7.0				30	2.0mØ	2.0Ø	1.0	40	250		.20		A	TO3	
34	B102001	1.0 #	45 Ø		7.0				40	2.0mØ	2.0Ø	1.0	40	250		.20		A	TO3	
35	B102002	1.0 #	45 Ø		7.0				50	2.0mØ	2.0Ø	1.0	40	250		.20		A	TO3	
36	B102003	1.0 #	45 Ø		7.0				60	2.0mØ	2.0Ø	1.0	40	250		.20		A	TO3	
37	B103000	1.0 #	45 Ø		10				30	2.0mØ	2.0Ø	3.0	40	200		.12		A	TO3	
38	B103001	1.0 #	45 Ø		10				40	2.0mØ	2.0Ø	3.0	40	200		.12		A	TO3	
39	B103002	1.0 #	45 Ø		10				50	2.0mØ	2.0Ø	3.0	40	200		.12		A	TO3	
40	B103003	1.0 #	45 Ø		10				60	2.0mØ	2.0Ø	3.0	40	200		.12		A	TO3	
41	B103004	1.0 #	45 Ø		10				70	2.0mØ	2.0Ø	3.0	40	200		.12		A	TO3	
42#	CTP1544	1.0	1.7 *	#J	25		60	30	30	15m	2.0Ø	25	25 †	125 †	4.0k	40m			TO3	
43#	CTP1552	1.0	1.7 *	#J	25		40	30	20	15m	2.0Ø	25	25 †	125 †	4.0k	40m			TO3	
44	DTG110A	1.0 ▼	85 Ø	♦J	15	5.0		2.8	70	20m#	2.0Ø	1.0	50	300 *	850k§			DA	TO3	CØ
45	DTG600†	1.0 ▼	85 Ø	♦J	15	5.0		1.4	50	20m#	2.0Ø	5.0	50	115 Ø	850k§	30m	4.4u	DA	TO3	CØ
46	DTG601†	1.0 ▼	85 Ø	♦J	15	5.0		1.4	50	20m#	2.0Ø	5.0	50	115 Ø	850k§	30m	4.4u	DA	TO3	CØ
47	DTG602†	1.0 ▼	85 Ø	♦J	15	5.0		1.4	70	20m#	2.0Ø	5.0	50	115 Ø	850k§	30m	4.4u	DA	TO3	CØ
48	DTG603†	1.0 ▼	85 Ø	♦J	15	5.0		1.4	80	20m#	2.0Ø	5.0	50	115 Ø	850k§	30m	4.4u	DA	TO3	CØ
49	DTG603M†	1.0 ▼	85 Ø	♦J	15	2.5		1.4	80	20m#	2.0Ø	5.0	50	250	850k§	30m	13u	DA	TO3	CØ
50	DTG2400M†	1.0	85 Ø	♦J	25	5.0		1.5	140 #	10m#	2.0Ø	10	25	125			18u		TO3	CØ
51	MP600†	1.0	85 Ø	♦J	25	5.0	75	1.5	50	200uØ	2.0Ø	5.0	50			30m	10uØ	ADE	TO3	CØ
52	MP601†	1.0	85 Ø	♦J	25	5.0	75	1.5	60	200uØ	2.0Ø	5.0	50			30m	10uØ	ADE	TO3	CØ
53	MP602†	1.0	85 Ø	♦J	25	5.0	90	1.5	70	200uØ	2.0Ø	5.0	50			30m	10uØ	ADE	TO3	CØ
54	MP603†	1.0	85 Ø	♦J	25	5.0	90	1.5	80	200uØ	2.0Ø	5.0	50			30m	10uØ	ADE	TO3	CØ
55	MP1612	1.0	85	♦J	20		70	2.0	50			10	25	100	18M§	.03			TO3	CØ
56	MP1612A	1.0	85	♦J	20		110	2.0	75			10	25	100	18M§	.03			TO3	CØ
57	MP1612B	1.0	85	♦J	20		13	2.0	100			10	25	100	18M§	.03			TO3	CØ
58	MP1613	1.0	85	♦J	7.0	2.0	100	50	75	5.0m	2.0Ø	1.0	40	70 Ø					TO3	CØ
59	MP2060	1.0	85 Ø	♦C	7.0	2.0	40	20	25	1.0mØ	2.0Ø	3.0	30	200	600k§			A	TO3	CØ
60	MP2061	1.0	85 Ø	♦C	7.0	2.0	60	20	35	1.0mØ	2.0Ø	3.0	30	200	600k§			A	TO3	CØ
61	MP2062	1.0	85 Ø	♦C	7.0	2.0	75	20	50	1.0mØ	2.0Ø	3.0	30	200	600k§			A	TO3	CØ
62	MP2063	1.0	85 Ø	♦C	7.0	2.0	90	20	60	1.0mØ	2.0Ø	3.0	30	200	600k§			A	TO3	CØ
63#	2G220	1.1 Ø		#J	10	5.0	40	30		2.0mØ	1.5Ø	10	10	12 Ø	200k	.05	11u	A	MD4	
64#	2G221	1.1 Ø		#J	10	5.0	60	30		2.0mØ	1.5Ø	10	10	12 Ø	200k	.05	11u	A	MD4	
65#	2G222	1.1 Ø		#J	10	5.0	80	30		2.0mØ	1.5Ø	10	10	12 Ø	200k	.05	11u	A	MD4	
66	2N176	1.2	90 Ø	#J	3.0		40		30 Ø	3.0mØ	2.0Ø	500mØ	25	90	7.0k	800m		A	TO3	CØ
67	2N178	1.2	40 Ø	#J	3.0		30	20	30	3.0mØ	2.0Ø	500m	15	45	6.0k	800m		A	TO3	CØ
68	2N250A	1.2	90 Ø	#J	7.0	2.0	40	20	25	500uØ	1.5Ø	3.0	25	100	160k§Δ	230m		A	TO3	CØ
69	2N251A	1.2	90 Ø	#J	7.0	2.0	60	20	35	500uØ	1.5Ø	3.0	25	100	160k§Δ	230m		A	TO3	CØ
70	2N350	1.2	10 Ø	#J	3.0		50		40	3.0mØ	2.0Ø	700m	20	60	6.0k	800m		A	TO3	CØ
71	2N350A	1.2	90 Ø	#J	3.0		50		40	3.0mØ	2.0Ø	700m	20	60	6.0k	800m	5.0u	A	TO3	CØ
72	2N351	1.2	10 Ø	#J	3.0		50		40	3.0mØ	2.0Ø	700m	25	90	6.0k	800m		A	TO3	CØ
73	2N351A	1.2	90 Ø	#J	3.0		50		40	3.0mØ	2.0Ø	700m	25	90	6.0k	800m	5.0u	A	TO3	CØ
74	2N375	1.2	90 Ø	#J	3.0		80	40	60	3.0mØ	4.0Ø	1.0 Ø	35	90	10k	800m	10u	Δ	TO3	CØ
75	2N376	1.2	10 Ø	#J	3.0		50		40	3.0mØ	2.0Ø	700m	35	120	6.0k	800m		A	TO3	CØ
76	2N376A	1.2	90 Ø	#J			50		40	3.0mØ	2.0Ø	700m	35	120	6.0k	800m	5.0u	A	TO3	CØ
77	2N456A	1.2 $	90 Ø	#J	7.0	3.0	40	20	30	2.0m	1.5Ø	5.0	30	90	200k§	100m		A	TO3	CØ
78	2N456B	1.2	150 Ø		7.0		40	30	30	.50mØ	1.5Ø	5.0	30	90	200k§Δ	.10		A	TO3	CØ
79	2N457A	1.2 $	90 Ø	#J	7.0	3.0	60	20	40	2.0m	1.5Ø	5.0	30	90	200k§	100m		A	TO3	CØ
80	2N457B	1.2	150 Ø		7.0		60	30	40	.50mØ	1.5Ø	5.0	30	90	200k§Δ	.10		A	TO3	CØ
81	2N458A	1.2 $	90 Ø	#J	7.0	3.0	80	20	45	2.0m	1.5Ø	5.0	30	90	200k§	100m		A	TO3	CØ
82	2N458B	1.2	150 Ø		7.0		80	30	45	.50mØ	1.5Ø	5.0	30	90	200k§Δ	.10		A	TO3	CØ
83	2N459A	1.2	106	J	5.0		105	25	60	500nØ	2.0Ø	2.0	20	70	5.0kΔ†			A	TO3	CØ
84	2N554	1.2	40 Ø	#J	3.0		15	15	16	10m	2.0Ø	500m	50 Ø		6.0k	800m		A	TO3	CØ
85	2N555	1.2	40 Ø	#J	3.0		30	15	30	20m	2.0Ø	500m	50 Ø		6.0k	800m		A	TO3	CØ
86	2N589	1.2	90	J	3.0		100	50	7.5 Ø	2.0mØ	2.0Ø	3.0 Ø	20	40				A	TO3	
87	2N618	1.2	90 Ø	#J	3.0		80	40	60 Ø	3.0mØ	4.0Ø	1.0 Ø	60	140	8.5k	400m	8.0uØ	Δ	TO3	CØ
88	2N627	1.2	90 Ø	#J	10		40	20	30 Ø	20m	2.0Ø	10	10	30	8.0k	100m		A	TO3	CØ
89	2N628	1.2	90 Ø	#J	10		60	30	45 Ø	20m	2.0Ø	10	10	30	8.0k	100m		A	TO3	CØ
90	2N629	1.2	90 Ø	#J	10		80	40	60 Ø	20m	2.0Ø	10	10	30	8.0k	100m		A	TO3	CØ
91	2N630	1.2	90 Ø	#J	10		100	50	75 Ø	20m	2.0Ø	10	10	30	8.0k	100m		A	TO3	CØ
92	2N669	1.2	90 Ø	#J	3.0		40		30 Ø	3.0mØ	2.0Ø	500m	75	250	5.0k	130m▼		A	TO3	CØ
93	2N1021	1.2 $	90 Ø	#J	7.0	3.0	100	20	50	2.0m	1.5Ø	5.0	30	90	200k	100m		AΔ	TO3	CØ
94	2N1021A	1.2	150 Ø		7.0		100	30	50	.50mØ	1.5Ø	5.0	30	90	200k§Δ	.10		A	TO3	CØ
95	2N1022	1.2 $	90 Ø	#J	7.0	3.0	120	20	55	2.0m	1.5Ø	5.0	30	90	200k	100m		A	TO3	CØ
96	2N1022A	1.2	150 Ø		7.0		120	30	55	.50mØ	1.5Ø	5.0	30	90	200k§Δ	.10		A	TO3	CØ
97	2N1031	1.2	90 Ø	#J	15	1.5	50	25	30 Ø	15m	2.0Ø	10	20	60		100m	15u	AΔ	TO41	CØ
98	2N1031A	1.2	90 Ø	#J	15	1.5	60	25	40 Ø	15m	2.0Ø	10	20	60		100m	15u	AΔ	TO41	CØ
99	2N1031B	1.2	90 Ø	#J	15	1.5	90	25	70 Ø	15m	2.0Ø	10	20	60		100m	15u	AΔ	TO41	CØ
100	2N1031C	1.2	90 Ø	#J	15	1.5	100	25	80 Ø	15m	2.0Ø	10	20	60		100m	15u	AΔ	TO41	CØ
101	2N1032	1.2	90 Ø	#J	15	1.5	50	25	30 Ø	15m	2.0Ø	10	50	100		100m	15u	AΔ	TO41	CØ
102	2N1032A	1.2	90 Ø	#J	15	1.5	60	25	40 Ø	15m	2.0Ø	10	50	100		100m	15u	AΔ	TO41	CØ
103	2N1032B	1.2	90 Ø	#J	15	1.5	90	25	70 Ø	15m	2.0Ø	10	50	100		100m	15u	AΔ	TO41	CØ
104	2N1032C	1.2	90 Ø	#J	15	1.5	100	25	80 Ø	15m	2.0Ø	10	50	100		100m	15u	AΔ	TO41	CØ
105	2N1073	1.2	60 Ø	♦J	10	1.0	40	.75	40 §	1.0mØ	2.0Ø	5.0	20	60	1.5M†	100m	5.0u	DAΔ	TO3	CØ
106	2N1073A	1.2	60 Ø	♦J	10	1.0	80	.75	80 §	1.0mØ	2.0Ø	5.0	20	60	1.5M†	100m	5.0u	DAΔ	TO3	CØ
107	2N1073B	1.2	60 Ø	♦J	10	1.0	120	.75	120 §	2.0mØ	2.0Ø	5.0	20	60	1.5M†	100m	5.0u	DAΔ	TO3	CØ
108	2N1099	1.2 §	30 Ø	#J	15 Ø	4.0	80	40	60	8.0m	2.0Ø	5.0	35	70	10k		15u		TO36	CØ
109	2N1100†	1.2 §	30 Ø	#J	15 Ø	4.0	100	80	45	8.0m	2.0Ø	5.0	25	50	10k		15u		TO36	CØ
110	JAN2N1120	1.2	90 Ø	#J	15 Ø	5.0	80	40	40	10m	2.0Ø	10	20	50	3.0kΔ	70m		Δ	TO41	CØ

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N1146	1.2	90 Ø	#J	15	5.0	40	30	30 Ø	4.0m	2.0Ø	5.0	60	150	4.0k	70m		AΔ	TO3	CØ
2	2N1146A	1.2	90 Ø	#J	15	5.0	60	30	45 Ø	4.0m	2.0Ø	5.0	60	150	4.0k	70m		AΔ	TO3	CØ
3	2N1146B	1.2	90 Ø	#J	15	5.0	80	30	60 Ø	4.0m	2.0Ø	5.0	60	150	4.0k	70m		AΔ	TO3	CØ
4	2N1146C	1.2	90 Ø	#J	15	5.0	100	30	75 Ø	4.0m	2.0Ø	5.0	60	150	4.0k	70m		AΔ	TO3	CØ
5	2N1147	1.2	90 Ø	#J	15	5.0	40	30	30 Ø	4.0m	2.0Ø	5.0	60	150	4.0k	70m		AΔ	TO41	CØ
6	2N1147A	1.2	90 Ø	#J	15	5.0	60	30	45 Ø	4.0m	2.0Ø	5.0	60	150	4.0k	70m		AΔ	TO41	CØ
7	2N1147B	1.2	90 Ø	#J	15	5.0	80	30	60 Ø	4.0m	2.0Ø	5.0	60	150	4.0k	70m		AΔ	TO41	CØ
8	2N1147C	1.2	90 Ø	#J	15	5.0	100	30	75 Ø	4.0m	2.0Ø	5.0	60	150	4.0k	70m		AΔ	TO41	CØ
9	2N1162	1.2	90 Ø	#J	25		50	25	35 Ø	15m	1.0Ø	25	15	65	4.0k†	40m	19uØ	A	TO3	CØ
10	2N1162A	1.2	90 Ø	#J	25		50	25	35 Ø	15m	1.0Ø	25	15	65	4.0k	40m	19uØ	A	TO3	CØ
11	2N1163	1.2	90 Ø	#J	25		50	25	35 Ø	15m	1.0Ø	25	15	65	4.0k	40m	19uØ	A	TO41	CØ
12	2N1163A	1.2	90 Ø	#J	25		50	25	35 Ø	15m	1.0Ø	25	15	65	4.0k	40m	19uØ	A	TO41	CØ
13	2N1164	1.2	90 Ø	#J	25		80	40	60 Ø	15m	1.0Ø	25	15	65	4.0k	40m	19uØ	A	TO3	CØ
14	2N1164A	1.2	90 Ø	#J	25		80	40	60 Ø	15m	1.0Ø	25	15	65	4.0k	40m	19uØ	A	TO3	CØ
15	2N1165	1.2	90 Ø	#J	25		80	40	60 Ø	15m	1.0Ø	25	15	65	4.0k	40m	19uØ	A	TO41	CØ
16	JAN2N1165	1.2	90 Ø	#J	25 Ø		80	40	60 Ø	15m	1.0Ø	5.0	25	125	3.0kΔ	40m			TO41	CØ
17	2N1165A	1.2	90 Ø	#J	25		80	40	60 Ø	15m	1.0Ø	25	15	65	4.0k	40m	19uØ	A	TO41	CØ
18	2N1166	1.2	90 Ø	#J	25		100	50	75 Ø	15m	1.0Ø	25	15	65	4.0k	40m	19uØ	A	TO3	CØ
19	2N1166A	1.2	90 Ø	#J	25		100	50	75 Ø	15m	1.0Ø	25	15	65	4.0k	40m	19uØ	A	TO3	CØ
20	2N1167	1.2	90 Ø	#J	25		100	50	75 Ø	15m	1.0Ø	25	15	65	4.0k	40m	19uØ	A	TO41	CØ
21	2N1167A	1.2	90 Ø	#J	25		100	50	75 Ø	15m	1.0Ø	25	15	65	4.0k	40m	19uØ	A	TO41	CØ
22	2N1295	1.2	90 Ø	#J	3.0	500m	80	15	80 Ø	2.0m	2.0Ø	500m	40		150k†	1.0		A	TO3	CØ
23	2N1358†	1.2 §	30 Ø	#J	15 Ø	4.0	80	60	40	8.0m	2.0	1.2	40	80	100k†	60m	15u		TO36	CØ
24	2N1359	1.2	90 Ø	#J	3.0		50	25	40 Ø	3.0mØ	4.0Ø	1.0 Ø	35	90	10k	500m	10uØ	Δ	TO3	CØ
25	2N1360	1.2	90 Ø	#J	3.0		50	25	40 Ø	3.0mØ	4.0Ø	1.0 Ø	60	140	8.5k	400m	8.0uØ	Δ	TO3	CØ
26	2N1362	1.2	90 Ø	#J	3.0		100	50	75 Ø	3.0mØ	4.0Ø	1.0 Ø	35	90	10k	500m	10uØ	Δ	TO3	CØ
27	2N1363	1.2	90 Ø	#J	3.0		100	50	75 Ø	3.0mØ	4.0Ø	1.0 Ø	60	140	8.5k	400m	8.0uØ	Δ	TO3	CØ
28	2N1364	1.2	90 Ø	#J	3.0		120	60	100 Ø	3.0mØ	4.0Ø	1.0 Ø	35	90	10k	500m	10uØ	Δ	TO3	CØ
29	2N1365	1.2	90 Ø	#J	3.0		120	60	100 Ø	3.0mØ	4.0Ø	1.0 Ø	40	100	8.5k	400m	8.0uØ	Δ	TO3	CØ
30	2N1412	1.2	87 Ø	#J	15 Ø	4.0	100	60	65	6.0m	2.0Ø	5.0	25	50		60m		Δ	TO36	CØ
31	2N1529	1.2	125	#J	5.0		40	20	20	2.0mØ	2.0Ø	3.0	20	40	2.0k				TO3	CØ
32	2N1530	1.2	125	#J	5.0		60	30	30	2.0mØ	2.0Ø	3.0	20	40	2.0k				TO3	CØ
33	2N1531	1.2	125	#J	5.0		80	40	40	2.0mØ	2.0Ø	3.0	20	40	2.0k				TO3	CØ
34	2N1532	1.2	125	#J	5.0		100	50	50	2.0mØ	2.0Ø	3.0	20	40	2.0k				TO3	CØ
35	2N1533	1.2	125	#J	5.0		120	60	60	2.0mØ	2.0Ø	3.0	20	40	2.0k				TO3	CØ
36	2N1534	1.2	125	#J	5.0		40	20	20	2.0mØ	2.0Ø	3.0	35	70	2.0k				TO3	CØ
37	2N1535	1.2	125	#J	5.0		60	30	30	2.0mØ	2.0Ø	3.0	35	70	2.0k				TO3	CØ
38	2N1536	1.2	125	#J	5.0		80	40	40	2.0mØ	2.0Ø	3.0	35	70	2.0k				TO3	CØ
39	2N1537	1.2	125	#J	5.0		100	50	50	2.0mØ	2.0Ø	3.0	35	70	2.0k				TO3	CØ
40	2N1538	1.2	125	#J	5.0		120	60	60	2.0mØ	2.0Ø	3.0	35	70	2.0k				TO3	CØ
41	2N1539	1.2	125	#J	5.0		40	20	20	2.0mØ	2.0Ø	3.0	50	100	1.0k				TO3	CØ
42	2N1539A	1.2	90 Ø	#J	5.0		40	20	20	2.0mØ	2.0Ø	3.0	50		4.0k	200m	5.0uØ	AΔ	TO3	CØ
43	2N1540	1.2	125	#J	5.0		60	30	30	2.0mØ	2.0Ø	3.0	50		1.0k				TO3	CØ
44	2N1540A	1.2	90 Ø	#J	5.0		60	30	30	2.0mØ	2.0Ø	3.0	50		4.0k	200m	5.0uØ	AΔ	TO3	CØ
45	2N1541	1.2	125	#J	5.0		80	40	40	2.0mØ	2.0Ø	3.0	50		1.0k				TO3	CØ
46	2N1541A	1.2	90 Ø	#J	5.0		80	40	40	2.0mØ	2.0Ø	3.0	50		4.0k	200m	5.0uØ	AΔ	TO3	CØ
47	2N1542	1.2	125	#J	5.0		100	50	50	2.0mØ	2.0Ø	3.0	50		1.0k				TO3	CØ
48	2N1542A	1.2	90	#J	5.0		100	50	50	2.0mØ	2.0Ø	3.0	50		4.0k	200m	5.0uØ	AΔ	TO3	CØ
49	2N1543	1.2	125	#J	5.0		120	60	60	2.0mØ	2.0Ø	3.0	50		1.0k				TO3	CØ
50	2N1544	1.2	90 Ø	#J	5.0		40	20	20	2.0mØ	2.0Ø	3.0	75	150	4.0k	100m	5.0uØ	AΔ	TO3	CØ
51	2N1544A	1.2	90 Ø	#J	5.0		40	20	20	2.0mØ	2.0Ø	3.0	75	150	4.0k	100m	5.0uØ	AΔ	TO3	CØ
52	2N1545	1.2	90 Ø	#J	5.0		60	30	30	2.0mØ	2.0Ø	3.0	75	150	4.0k	100m	5.0uØ	AΔ	TO3	CØ
53	2N1545A	1.2	90 Ø	#J	5.0		60	30	30	2.0mØ	2.0Ø	3.0	75	150	4.0k	100m	5.0uØ	AΔ	TO3	CØ
54	2N1546	1.2	90 Ø	#J	5.0		80	40	40	2.0mØ	2.0Ø	3.0	75	150	4.0k	100m	5.0uØ	AΔ	TO3	CØ
55	2N1546A	1.2	90 Ø	#J	5.0		80	40	40	2.0mØ	2.0Ø	3.0	75	150	4.0k	100m	5.0uØ	AΔ	TO3	CØ
56	2N1547	1.2	90 Ø	#J	5.0		100	50	50	2.0mØ	2.0Ø	3.0	75	150	4.0k	100m	5.0uØ	AΔ	TO3	CØ
57	2N1547A	1.2	90 Ø	#J	5.0		100	50	50	2.0mØ	2.0Ø	3.0	75	150	4.0k	100m	5.0uØ	AΔ	TO3	CØ
58	2N1548	1.2	90 Ø	#J	5.0		120	60	60	2.0mØ	2.0Ø	3.0	75	150	4.0k	100m	5.0uØ	AΔ	TO3	CØ
59	2N1549	1.2	90 Ø	#J	15		40	20	20	3.0mØ	2.0Ø	10	10	30	10k	100m	5.0uØ	AΔ	TO3	CØ
60	2N1549A	1.2	90 Ø	#J	15		40	20	20	3.0mØ	2.0Ø	10	10	30	10k	100m	5.0uØ	AΔ	TO3	CØ
61	2N1550	1.2	90 Ø	#J	15		60	30	30	3.0mØ	2.0Ø	10	10	30	10k	100m	5.0uØ	AΔ	TO3	CØ
62	2N1550A	1.2	90 Ø	#J	15		60	30	30	3.0mØ	2.0Ø	10	10	30	10k	100m	5.0uØ	AΔ	TO3	CØ
63	2N1551	1.2	90 Ø	#J	15		80	40	40	3.0mØ	2.0Ø	10	10	30	10k	100m	5.0uØ	AΔ	TO3	CØ
64	2N1551A	1.2	90 Ø	#J	15		80	40	40	3.0mØ	2.0Ø	10	10	30	10k	100m	5.0uØ	AΔ	TO3	CØ
65	2N1552	1.2	90 Ø	#J	15		100	50	50	3.0mØ	2.0Ø	10	10	30	10k	100m	5.0uØ	AΔ	TO3	CØ
66	2N1552A	1.2	90 Ø	#J	15		100	50	50	3.0mØ	2.0Ø	10	10	20	10k	100m	5.0uØ	AΔ	TO3	CØ
67	2N1553	1.2	90 Ø	#J	15		40	20	20	3.0mØ	2.0Ø	10	30	60	6.0k	70m	10uØ	AΔ	TO3	CØ
68	2N1553A	1.2	90 Ø	#J	15		40	20	20	3.0mØ	2.0Ø	10	30	60	6.0k	70m	10uØ	AΔ	TO3	CØ
69	2N1554	1.2	90 Ø	#J	15		60	30	30	3.0mØ	2.0Ø	10	30	60	6.0k	70m	10uØ	AΔ	TO3	CØ
70	2N1554A	1.2	90 Ø	#J	15		60	30	30	3.0mØ	2.0Ø	10	30	60	6.0k	70m	10uØ	AΔ	TO3	CØ
71	2N1555	1.2	90 Ø	#J	15		80	40	40	3.0mØ	2.0Ø	10	30	60	6.0k	70m	10uØ	AΔ	TO3	CØ
72	2N1555A	1.2	90 Ø	#J	15		80	40	40	3.0mØ	2.0Ø	10	30	60	6.0k	70m	10uØ	AΔ	TO3	CØ
73	2N1556	1.2	90 Ø	#J	15		100	50	50	3.0mØ	2.0Ø	10	30	60	6.0k	70m	10uØ	AΔ	TO3	CØ
74	2N1556A	1.2	90 Ø	#J	15		100	50	50	3.0mØ	2.0Ø	10	30	60	6.0k	70m	10uØ	AΔ	TO3	CØ
75	JAN2N1556A†	1.2	90 Ø	#J	15	5.0	100	50	50	3.0mØ	2.0Ø	10	30	60	3.0kΔ	700m	10uØ		MD6f	CØ
76	2N1557	1.2	90 Ø	#J	15		40	20	20	3.0mØ	2.0Ø	10	50	100	5.0k	50m	10uØ	AΔ	TO3	CØ
77	2N1557A	1.2	90 Ø	#J	15		40	20	20	3.0mØ	2.0Ø	10	50	100	5.0k	50m	10uØ	AΔ	TO3	CØ
78	2N1558	1.2	90 Ø	#J	15		60	30	30	3.0mØ	2.0Ø	10	50	100	5.0k	50m	10uØ	AΔ	TO3	CØ
79	2N1558A	1.2	90 Ø	#J	15		60	30	30	3.0mØ	2.0Ø	10	50	100	5.0k	50m	10uØ	AΔ	TO3	CØ
80	JAN2N1558A†	1.2	90 Ø	#J	15	5.0	60	30	30	3.0mØ	2.0Ø	10	50	100	3.0kΔ	50m	10u		MD6f	CØ
81	2N1559	1.2	90 Ø	#J	15		80	40	40	3.0mØ	2.0Ø	10	50	100	5.0k	50m	10uØ	AΔ	TO3	CØ
82	2N1559A	1.2	90 Ø	#J	15		80	40	40	3.0mØ	2.0Ø	10	50	100	5.0k	50m	10uØ	AΔ	TO3	CØ
83	2N1560	1.2	90 Ø	#J	15		100	50	50	3.0mØ	2.0Ø	10	50	100	5.0k	50m	10uØ	AΔ	TO3	CØ
84	2N1560A	1.2	90 Ø	#J	15		100	50	50	3.0mØ	2.0Ø	10	50	100	5.0k	50m	10uØ	AΔ	TO3	CØ
85	2N1651†	1.2	100 Ø	♦J	25	2.5	60	1.5	60	5.0mØ	2.0Ø	10	35	140	1.5Mt	250m	7.0u	DA	TO41	CØ
86	JAN2N1651†	1.2	100 Ø	♦J	25		60	1.5	30	5.0m	2.0Ø	10	35	105	600k§Δ	26m	10u		MD27	
87	2N1652†	1.2	100 Ø	♦J	25	2.5	100	1.5	100	5.0mØ	2.0Ø	10	35	140	1.5Mt	250m	7.0u	DA	TO41	CØ
88	JAN2N1652†	1.2	100 Ø	♦J	25		100	1.5	60	5.0m	2.0Ø	10	35	105	600k§Δ	26m	10u		MD27	
89	2N1653†	1.2	100 Ø	♦J	25	2.5	120	1.5	120	5.0mØ	2.0Ø	10	35	140	1.5Mt	250m	7.0u	DA	TO41	CØ
90	JAN2N1653†	1.2	100 Ø	♦J	25		120	1.5	80	5.0m	2.0Ø	10	35	105	600k§Δ	26m	10u		MD2	
91	2N1751	1.2	1.0	♦J	25	25 Ø	80	2.5	80	300u	1.5Ø	20	30	90		25m		AD	TO3	CØ
92	2N1970	1.2	93 Ø	#S	15 Ø	4.0	100	40	50	4.0m	2.0Ø	5.0	17	40	5.0kΔ			Δ	TO36	CØ
93	2N2061A	1.2	90 Ø	#J	5.0		20	10	15	2.0m	2.0Ø	2.0	20	60	5.0k	200m	10uØ	AΔ	TO3	CØ
94	2N2062A	1.2	90 Ø	#J	5.0		20	10	15	2.0m	2.0Ø	2.0	50	140	1.0k	140m	5.0uØ	AΔ	TO3	CØ
95	2N2063A	1.2	90 Ø	#J	5.0		40	20	20	2.0m	2.0Ø	2.0	20	60	5.0k	200m	10uØ	AΔ	TO3	CØ
96	2N2064A	1.2	90 Ø	#J	5.0		40	20	20	2.0m	2.0Ø	2.0	50	140	1.0k	140m	5.0uØ	AΔ	TO3	CØ
97	2N2065A	1.2	90 Ø	#J	5.0		80	30	40	5.0m	2.0Ø	2.0	20	60	5.0k	200m	10uØ	AΔ	TO3	CØ
98	2N2066A	1.2	90 Ø	#J	5.0		80	30	40	5.0m	2.0Ø	2.0	50	140	1.0k	140m	5.0uØ	AΔ	TO3	CØ
99	2N2212	1.2 †	60 Ø	♦J	10	3.0	120	1.5	120	2.0mØ	2.0Ø	5.0	50	120	450k§Δ	200m			TO41	CØ
100	2N2285	1.2	100 Ø	♦C	25	5.0	60	1.5	30	5.0m	2.0Ø	10	35	140	600k§				TO3	CØ
101	2N2286	1.2	100 Ø	♦C	25	5.0	100	1.5	60	5.0m	2.0Ø	10	35	140	600k§				TO3	CØ
102	2N2287	1.2	100 Ø	♦C	25	5.0	120	1.5	80	5.0m	2.0Ø	10	35	140	600k§				TO3	CØ
103	2N2288	1.2	60 Ø	♦J	10	1.0	40	.75	40 §	1.0mØ	2.0Ø	5.0	20	60	1.5Mt	100m	5.0u	DAΔ	TO3	CØ
104	2N2289	1.2	60 Ø	♦J	10	1.0	80	.75	80 §	1.0mØ	2.0Ø	5.0	20	60	1.5Mt	100m	5.0u	DAΔ	TO3	CØ
105	2N2290	1.2	60 Ø	♦J	10	1.0	120	.75	120 §	2.0mØ	2.0Ø	5.0	20	60	1.5Mt	100m	5.0u	DAΔ	TO3	CØ
106	2N2691	1.2	100 Ø	♦A	20	5.0	100	1.5	80	5.0m	1.5Ø	20	30	100			700uØ	Δ	TO41	CØ
107	2N3124	1.2	90 Ø	#C	15	5.0	40	20	30 Ø	20m	2.0Ø	10	50	100	2.5kΔ	50m			TO41	
108	2N3125	1.2	90 Ø	#C	3.3	1.7	80	40	80 Ø	15m	2.0Ø	3.0	30	75	5.0kΔ	500m			TO41	
109	2N3126	1.2	90 Ø	#C	15	3.0	100	12	75 Ø	3.0mØ	2.0Ø	10	10	30	6.0kΔ	100m			TO41	
110	2N4242	1.2	106 Ø	♦J	10	3.0	80	40	70 Ø	2.0m	2.0Ø	5.0	40	80		75m			TO3	CØ

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	C E A D O D E
1	2N4243	1.2	106 Ø	♦J	10	3.0	60	30	55 Ø	2.0m	2.0Ø	5.0	40	80		75m			TO3	CØ
2	2N4244	1.2	106 Ø	♦J	10	3.0	40	20	40 Ø	2.0m	2.0Ø	5.0	40	80		75m			TO3	CØ
3	2N4245	1.2	106 Ø	♦J	10	3.0	80	40	70 Ø	2.0m	2.0Ø	5.0	60	120		75m			TO3	CØ
4	2N4246	1.2	106 Ø	♦J	10	3.0	60	30	55 Ø	2.0m	2.0Ø	5.0	60	120		75m			TO3	CØ
5	2N4247	1.2	106 Ø	♦J	10	3.0	40	20	40 Ø	2.0m	2.0Ø	5.0	60	120		75m			TO3	CØ
6	2N5156†	1.2	93 Ø	#J	10	2.0	100	60	60	4.0m	2.0Ø	5.0	25	60	150k§Δ	100m	20u		TO3	CØ
7	3N49	1.2	94 Ø	#J	15 Ø	2.0	60	28	35	3.0m	2.0Ø	5.0	30	120	600kΔ	80m			MT70	GKØ
8	3N50	1.2	94 Ø	#J	15 Ø	2.0	80	28	50	3.0m	2.0Ø	5.0	20	80	300kΔ	80m			MT70	GKØ
9	3N51	1.2	94 Ø	#J	15 Ø	2.0	40	28	25	3.0m	2.0Ø	5.0	30	120	500kΔ	80m			MT70	GKØ
10	3N52	1.2	94 Ø	#J	15 Ø	2.0	60	28	40	3.0m	2.0Ø	5.0	20	80	300kΔ	80m			MT70	GKØ
11#	ADZ11	1.2 #	45 Ø	#J	20	4.0	50	30	40	8.0m	2.0Ø	1.2	40	120 Ø	100kt			AD	ZA4	Ø
12#	ADZ12	1.2 #	45 Ø	#J	20	4.0	80	50	60	8.0m	2.0Ø	1.2	40	120 Ø	100kt			AD	ZA4	Ø
13	B113000	1.2	70 Ø	♦J	25	2.5	110	2.0	70	100mΔ	2.0Ø	2.0	60	300		100m		DΔ	TO3	
14	B113001	1.2	70 Ø	♦J	25	2.5	130	2.0	80	100mΔ	2.0Ø	2.0	60	300		100m		DΔ	TO3	
15	B113002	1.2	70 Ø	♦J	25	2.5	160	2.0	100	100mΔ	2.0Ø	2.0	60	300		100m		DΔ	TO3	
16	B113003†	1.2	70 Ø	♦J	25	2.5	130	2.0	80	50m*	2.0Ø	10	30	100		30m	30u	DΔ	TO3	
17	B113004†	1.2	70 Ø	♦J	25	2.5	160	2.0	90	50m*	2.0Ø	10	30	100		30m	30u	DΔ	TO3	
18	B113005†	1.2	70 Ø	♦J	25	2.5	170	2.0	100	50m*	2.0Ø	10	30	100		30m	30u	DΔ	TO3	
19	CQT940A	1.2	90 Ø	#J	15	5.0	100	20	85 Ø		2.0Ø	10	20			90m		A	TO3	CØ
20	CQT940B	1.2	90 Ø	#J	15	5.0	80	60	60 Ø		2.0Ø	7.0	30			90m		A	TO3	CØ
21	CQT940BA	1.2	90 Ø	#J	15	5.0	80	60	60 Ø		2.0Ø	10	30			60m		A	TO3	CØ
22	CQT1110	1.2	90 Ø	#J	5.0		40	10	30	2.0mØ	2.0Ø	1.0	50	250	250k§	200m			TO3	A
23	CQT1110A	1.2	90 Ø	#J	5.0		40	10	30	2.0mØ	2.0Ø	1.0	50	250 *	250k§	200m			TO3	A
24	CQT1111	1.2	90 Ø	#J	5.0		60	10	50	2.0mØ	2.0Ø	1.0	50	250	250k§	200m			TO3	A
25	CQT1111A	1.2	90 Ø	#J	5.0		60	10	50	2.0mØ	2.0Ø	1.0	50	250 *	250k§	200m			TO3	A
26	CQT1112	1.2	90 Ø	#J	10		65	65	65	2.0mØ	2.0Ø	1.0	75	300	250k§	100m			TO3	A
27	CTP1500	1.2	90 Ø	#J	15	5.0	100	30	80 Ø	8.0m	2.0Ø	5.0	30	75		70m		AΔ	TO3	CØ
28	CTP1503	1.2	90 Ø	#J	15	5.0	80	30	70 Ø	8.0m	2.0Ø	5.0	30	75		70m		AΔ	TO3	CØ
29	CTP1504	1.2	90 Ø	#J	15	5.0	60	30	50 Ø	8.0m	2.0Ø	5.0	30	75		70m		AΔ	TO3	CØ
30	CTP1508	1.2	90 Ø	#J	15	5.0	40	30	40 Ø	8.0m	2.0Ø	5.0	30	75		70m		AΔ	TO3	CØ
31	CTP3500	1.2	90 Ø	#J	15	5.0	100	30	80 Ø	8.0m	2.0Ø	5.0	30	75		70m		AΔ	TO41	CØ
32	CTP3503	1.2	90 Ø	#J	15	5.0	80	30	70 Ø	8.0m	2.0Ø	5.0	30	75		70m		AΔ	TO41	CØ
33	CTP3504	1.2	90 Ø	#J	15	5.0	60	30	50 Ø	8.0m	2.0Ø	5.0	30	75		70m		AΔ	TO41	CØ
34	CTP3508	1.2	90 Ø	#J	15	5.0	40	30	40 Ø	8.0m	2.0Ø	5.0	30	75		70m		AΔ	TO41	CØ
35	CTP3544	1.2	90 Ø	#J	25	5.0	60	30	40 Ø	15m	2.0Ø	25	25	125	5.0k	40m		AΔ	TO41	CØ
36	CTP3545	1.2	90 Ø	#J	25	5.0	80	30	60 Ø	15m	2.0Ø	25	25	125	5.0k	40m		AΔ	TO41	CØ
37	CTP3552	1.2	90 Ø	#J	25	5.0	40	30	30 Ø	10m	2.0Ø	25	25	75	5.0k	40m		AΔ	TO41	CØ
38	CTP3553	1.2	90 Ø	#J	25	5.0	100	30	75 Ø	10m	2.0Ø	25	25	75	5.0k	40m		AΔ	TO41	CØ
39	DTG110	1.2	70 Ø	♦J	7.0	1.0		2.0	65	2.0m	2.0Ø	1.0	74 *	250	320k§			DΔ	TO3	
40	DTG110B	1.2	70 Ø	♦J	25	5.0		2.0	40		2.0Ø	1.0	65 *	300	850k§	100m		DΔ	TO3	
41	DTG1010†	1.2	106 Ø	♦J	15	3.0		1.0	325 #	15m#					450k§	160m	6.0u	A	TO41	
42	DTG1110†	1.2	106 Ø	♦J	15	3.0		1.0	200 #	15m#					450k§	160m	6.0u	A	TO41	
43	DTG1200	1.2	106 Ø	♦J	15	3.0		1.0		100mΔ	.50Ø	8.0	23			40m		A	TO41	CØ
44	MP110	1.2	106 Ø	♦J	7.0	2.0			65 #	2.0mØ	2.0Ø	1.0	74	250	320k§			A	TO3	CØ
45	MP110B	1.2	106 Ø	♦J	25	5.0	90	2.0	40	200uØ	2.0Ø	1.0	65	300 *	500k§Δ	100m		ADEΔ	TO3	CØ
46	MP525	1.2	106	♦J	10				60	200uØ	2.0Ø	3.0	30	200 *					TO3	CØ
47	MP1529†	1.2	90 Ø	♦J	5.0		40	20	20	2.0mØ	2.0Ø	3.0	20	40		500m	8.0uØ	A	TO41	CØ
48	MP1529A†	1.2	90 Ø	♦J	5.0		40	20	20	2.0mØ	2.0Ø	3.0	20	40	5.0kΔ	500m	8.0uØ	A	TO41	CØ
49	MP1530†	1.2	90 Ø	♦J	5.0		60	30	30	2.0mØ	2.0Ø	3.0	20	40		500m	8.0uØ	A	TO41	CØ
50	MP1530A†	1.2	90 Ø	♦J	5.0		60	30	30	2.0mØ	2.0Ø	3.0	20	40	5.0kΔ	500m	8.0uØ	A	TO41	CØ
51	MP1531†	1.2	90 Ø	♦J	5.0		80	40	40	2.0mØ	2.0Ø	3.0	20	40		500m	8.0uØ	A	TO41	CØ
52	MP1531A†	1.2	90 Ø	♦J	5.0		80	40	40	2.0mØ	2.0Ø	3.0	20	40	5.0kΔ	500m	8.0uØ	A	TO41	CØ
53	MP1532†	1.2	90 Ø	♦J	5.0		100	50	50	2.0mØ	2.0Ø	3.0	20	40		500m	8.0uØ	A	TO41	CØ
54	MP1532A†	1.2	90 Ø	♦J	5.0		100	50	50	2.0mØ	2.0Ø	3.0	20	40	5.0kΔ	500m	8.0uØ	A	TO41	CØ
55	MP1533†	1.2	90 Ø	♦J	5.0		120	60	60	2.0mØ	2.0Ø	3.0	20	40		400m	8.0uØ	A	TO41	CØ
56	MP1534†	1.2	90 Ø	♦J	5.0		40	20	20	2.0mØ	2.0Ø	3.0	35	70		400m	8.0uØ	A	TO41	CØ
57	MP1534A†	1.2	90 Ø	♦J	5.0		40	20	20	2.0mØ	2.0Ø	3.0	35	70	5.0kΔ	400m	8.0uØ	A	TO41	CØ
58	MP1535†	1.2	90 Ø	♦J	5.0		60	30	30	2.0mØ	2.0Ø	3.0	35	70		400m	8.0uØ	A	TO41	CØ
59	MP1535A†	1.2	90 Ø	♦J	5.0		60	30	30	2.0mØ	2.0Ø	3.0	35	70	5.0kΔ	400m	8.0uØ	A	TO41	CØ
60	MP1536†	1.2	90 Ø	♦J	5.0		80	40	40	2.0mØ	2.0Ø	3.0	35	70		400m	8.0uØ	A	TO41	CØ
61	MP1536A†	1.2	90 Ø	♦J	5.0		80	40	40	2.0mØ	2.0Ø	3.0	35	70	5.0kΔ	400m	8.0uØ	A	TO41	CØ
62	MP1537†	1.2	90 Ø	♦J	5.0		100	50	50	2.0mØ	2.0Ø	3.0	35	70		400m	8.0uØ	A	TO41	CØ
63	MP1537A†	1.2	90 Ø	♦J	5.0		100	50	50	2.0mØ	2.0Ø	3.0	35	70	5.0kΔ	400m	8.0uØ	A	TO41	CØ
64	MP1538†	1.2	90 Ø	♦J	5.0		120	60	60	2.0mØ	2.0Ø	3.0	35	70		400m	8.0uØ	A	TO41	CØ
65	MP1549	1.2	90 Ø	#J	15		40	20	20	3.0mØ	2.0Ø	10	10	30	10k	100m	5.0uØ	A	TO41	CØ
66	MP1549A†	1.2	90 Ø	#J	15		40	20	20	3.0mØ	2.0Ø	10	10	30	10k	100m	5.0uØ	A	TO41	CØ
67	MP1550	1.2	90 Ø	#J	15		60	30	30	3.0mØ	2.0Ø	10	10	30	10k	100m	5.0uØ	A	TO41	CØ
68	MP1550A†	1.2	90 Ø	#J	15		60	30	30	3.0mØ	2.0Ø	10	10	30	10k	100m	5.0uØ	A	TO41	CØ
69	MP1551	1.2	90 Ø	#J	15		80	40	40	3.0mØ	2.0Ø	10	10	30	10k	100m	5.0uØ	A	TO41	CØ
70	MP1551A†	1.2	90 Ø	#J	15		80	40	40	3.0mØ	2.0Ø	10	10	30	10k	100m	5.0uØ	A	TO41	CØ
71	MP1552	1.2	90 Ø	#J	15		100	50	50	3.0mØ	2.0Ø	10	10	30	10k	100m	5.0uØ	A	TO41	CØ
72	MP1552A†	1.2	90 Ø	#J	15		100	50	50	3.0mØ	2.0Ø	10	10	30	10k	100m	5.0uØ	A	TO41	CØ
73	MP1553	1.2	90 Ø	#J	15		40	20	20	3.0mØ	2.0Ø	10	30	60	6.0k	70m	10uØ	A	TO41	CØ
74	MP1553A†	1.2	90 Ø	#J	15		40	20	20	3.0mØ	2.0Ø	10	30	60	6.0k	70m	10uØ	A	TO41	CØ
75	MP1554	1.2	90 Ø	#J	15		60	30	30	3.0mØ	2.0Ø	10	30	60	6.0k	70m	10uØ	A	TO41	CØ
76	MP1554A†	1.2	90 Ø	#J	15		60	30	30	3.0mØ	2.0Ø	10	30	60	6.0k	70m	10uØ	A	TO41	CØ
77	MP1555	1.2	90 Ø	#J	15		80	40	40	3.0mØ	2.0Ø	10	30	60	6.0k	70m	10uØ	A	TO41	CØ
78	MP1555A†	1.2	90 Ø	#J	15		80	40	40	3.0mØ	2.0Ø	10	30	60	6.0k	70m	10uØ	A	TO41	CØ
79	MP1556	1.2	90 Ø	#J	15		100	50	50	3.0mØ	2.0Ø	10	30	60	6.0k	70m	10uØ	A	TO41	CØ
80	MP1556A†	1.2	90 Ø	#J	15		100	50	50	3.0mØ	2.0Ø	10	30	60	6.0k	70m	10uØ	A	TO41	CØ
81	MP1557	1.2	90 Ø	#J	15		40	20	20	3.0mØ	2.0Ø	10	50	100	5.0k	50m	10uØ	A	TO41	CØ
82	MP1557A†	1.2	90 Ø	#J	15		40	20	20	3.0mØ	2.0Ø	10	50	100	5.0k	50m	10uØ	A	TO41	CØ
83	MP1558	1.2	90 Ø	#J	15		60	30	30	3.0mØ	2.0Ø	10	50	100	5.0k	50m	10uØ	A	TO41	CØ
84	MP1558A†	1.2	90 Ø	#J	15		60	30	30	3.0mØ	2.0Ø	10	50	100	5.0k	50m	10uØ	A	TO41	CØ
85	MP1559	1.2	90 Ø	#J	15		80	40	40	3.0mØ	2.0Ø	10	50	100	5.0k	50m	10uØ	A	TO41	CØ
86	MP1559A†	1.2	90 Ø	#J	15		80	40	40	3.0mØ	2.0Ø	10	50	100	5.0k	50m	10uØ	A	TO41	CØ
87	MP1560	1.2	90 Ø	#J	15		100	50	50	3.0mØ	2.0Ø	10	50	100	5.0k	50m	10uØ	A	TO41	CØ
88	MP1560A†	1.2	90 Ø	#J	15		100	50	50	3.0mØ	2.0Ø	10	50	100	5.0k	50m	10uØ	A	TO41	CØ
89	MP2000A†	1.2	106 Ø	♦J	25	5.0		2.0	30	200uØ	2.0Ø	8.0	25		210k§	24m	9.0uØ	ADE	TO3	CØ
90	MP2100A†	1.2	106 Ø	♦J	25	5.0		2.0	60	200uØ	2.0Ø	8.0	25		210k§	24m	9.0uØ	ADE	TO3	CØ
91	MP2200A†	1.2	106 Ø	♦J	25	5.0		2.0	80	200uØ	2.0Ø	8.0	25		210k§	24m	9.0uØ	ADE	TO3	CØ
92	MP2300A†	1.2	106 Ø	♦J	25	5.0		2.0	100	200uØ	2.0Ø	8.0	25		210k§	24m	9.0uØ	ADE	TO3	CØ
93	MP2400A†	1.2	106 Ø	♦J	25	5.0		2.0	120	200uØ	2.0Ø	8.0	25		210k§	24m	9.0uØ	ADE	TO3	CØ
94#	SFT264	1.2	87 Ø	#C	15		30	15	15	8.0m	2.0Ø	5.0	25	100	300kt	600m		A	TO36	CØ
95#	SFT265	1.2	87 Ø	#C	15	2.5	40	20	40	8.0m	2.0Ø	5.0	25	45 Ø	300kt	60m	9.0uØ	A	TO36	CØ
96#	SFT266	1.2	87 Ø	#C	15	2.5	60	40	50	8.0m	2.0Ø	5.0	25	45 Ø	300kt	60m	6.0u	AΔ	TO36	CØ
97#	SFT267	1.2	87 Ø	#S	15	2.5	80	60	60	8.0m	2.0Ø	5.0	25	45 Ø	300kt	60m	6.0u	AΔ	TO36	CØ
98	2N392	1.3		#J	5.0 Ø	1.0	60	40	40 §	8.0m	2.0	1.0		200	6.0k	.17		A	TO3	CØ
99	2N1168	1.3		#J	5.0 Ø	1.0	50	20	30 §	8.0m	2.0	1.0	70	110 Ø	10k	.08		A	TO3	CØ
100	2N1291	1.3		#J	3.0	.50	35	15	30 Ø	1.5m	2.0Ø	.50	30	90	150k§	1.0		A	TO3	CØ
101	2N1293	1.3		#J	3.0	.50	60	15	45 Ø	2.0m	2.0Ø	.50	30	90	150k§	1.0		A	TO3	CØ
102	2N1297	1.3		#J	3.0	.50	100	15	80 Ø	4.0m	2.0Ø	.50	30	90	150k§	1.0		A	TO3	CØ
103	2N1518†	1.3	50 Ø		25	4.0	50	30	40	4.0m	4.0Ø	15	15	40	4.0k	.03	20u	A	TO36	CØ
104	2N1519†	1.3	50 Ø		25	4.0	80	30	60	4.0m	4.0Ø	15	15	40	4.0k	.03	20u	A	TO36	CØ
105	2N1520†	1.3	50 Ø		35	6.0	50	30	40	4.0m	4.0Ø	15	17	35	4.0k	.02	25u	A	TO36	CØ
106	2N1521†	1.3	50 Ø		35	6.0	80	30	60	4.0m	4.0Ø	15	17	35	4.0k	.02	25u	A	TO36	CØ
107	2N1522†	1.3	50 Ø		50	8.0	50	30	40	4.0m	4.0Ø	15	22	45	4.0k	.01	30u	A	TO36	CØ
108	2N1523†	1.3	50 Ø		50	8.0	80	30	60	4.0m	4.0Ø	15	22	45	4.0k	.01	30u	A	TO36	CØ
109	2N1529A	1.3		#J	5.0	5.0 Ø	40	20	30 Ø	20m	2.0Ø	3.0	20	40	5.0kΔ	.50			TO3	CØ
110	2N1530A	1.3		#J	5.0	5.0 Ø	60	30	45 Ø	20m	2.0Ø	3.0	20	40	5.0kΔ	.50			TO3	CØ

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT EX MP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CONF
1	2N1531A	1.3		#J	5.0	5.0 Ø	80	40	60 Ø	20m	2.0Ø	3.0	20	40	5.0kΔ	.50			TO3	CØ
2	2N1532A	1.3		#J	5.0	5.0 Ø	100	50	75 Ø	20m	2.0Ø	3.0	20	40	5.0kΔ	.50			TO3	CØ
3	2N1534A	1.3		#J	5.0	5.0 Ø	40	20	30 Ø	20m	2.0Ø	3.0	35	70	5.0kΔ	.40			TO3	CØ
4	2N1535A	1.3		#J	5.0	5.0 Ø	60	30	45 Ø	20m	2.0Ø	3.0	35	70	5.0kΔ	.40			TO3	CØ
5	2N1536A	1.3		#J	5.0	5.0 Ø	80	40	60 Ø	20m	2.0Ø	3.0	35	70	5.0kΔ	.40			TO3	CØ
6	2N1537A	1.3		#J	5.0	5.0 Ø	100	50	75 Ø	20m	2.0Ø	3.0	35	70	5.0kΔ	.40			TO3	CØ
7	2N2291	1.3	60	♦J	10	1.0	40	.75	40	1.0mØ	2.0Ø	5.0	50	120	1.5Mt	.10	5.0u	DAΔ	TO3	CØ
8	2N2292	1.3	60	♦J	10	1.0	80	.75	80	1.0mØ	2.0Ø	5.0	50	120	1.5Mt	.10	5.0u	DAΔ	TO3	CØ
9	2N2293	1.3	60	♦J	10	1.0	120	.75	120	2.0mØ	2.0Ø	5.0	50	120	1.5Mt	.10	5.0u	DAΔ	TO3	CØ
10	2N2294	1.3	60	♦J	10	1.0	40	.75	40	1.0mØ	2.0Ø	5.0	50	120	1.5Mt	.10	5.0u	DAΔ	TO41	CØ
11	2N2295	1.3	60	♦J	10	1.0	80	.75	80	1.0mØ	2.0Ø	5.0	50	120	1.5Mt	.10	5.0u	DAΔ	TO41	CØ
12	2N2296	1.3	60	♦J	10	1.0	120	.75	120	2.0mØ	2.0Ø	5.0	50	120	1.5Mt	.10	5.0u	DAΔ	TO41	CØ
13	2N2423	1.3		#J	5.0	5.0	100	30	80	5.0m	2.0Ø	2.0	20	100				A	TO3	
14	2N2445	1.3	90		20	2.0	100	12	50	3.0mØ	2.0	10	20	60		.10			TO41	AØ
15	2N2636	1.3 Ø		♦J	25				100	10mØ	2.0Ø	10	35	140			4u#Ø	DAΔ	TO41	CØ
16	2N2637	1.3 Ø		♦J	25				100	10mØ	2.0Ø	10	35	140			4u#Ø	DAΔ	TO41	CØ
17	2N2638	1.3 Ø		♦J	25				100	10mØ	2.0Ø	10	35	140			3.5u#Ø	DAΔ	TO41	CØ
18	JAN2N5156†	1.3	90 Ø	#A	10		100	60	60 Ø	4.0m	2.0Ø	500m	60	250		100m	20u		TO3	CØ
19#	2SB203	1.3	80 Ø	#J	20		40		30 Ø	5.0m	1.5Ø	15	20	40 Ø				A	MD18	
20#	2SB204	1.3	80 Ø	#J	30		40		30 Ø	5.0m	1.5Ø	15	50	100 Ø				A	MD18	
21#	2SB205	1.3	80 Ø	#J	20		80		60 Ø	5.0m	1.5Ø	15	20	40 Ø				A	MD18	
22#	2SB206	1.3	80 Ø	#J	30		80		60 Ø	5.0m	1.5Ø	15	50	100 Ø				A	MD18	
23#	2SB207	1.3	80 Ø	#J	20		100		75 Ø	5.0m	1.5Ø	15	20	40 Ø				A	MD18	
24#	2SB207A	1.3	80 Ø	#J	20		140		85 Ø	5.0m	1.5Ø	15	20	40 Ø				A	MD18	
25#	2SB208	1.3	80 Ø	#J	30		100		75 Ø	5.0m	1.5Ø	15	50	100 Ø				A	MD18	
26#	2SB208A	1.3	80 Ø	#J	30		140		85 Ø	5.0m	1.5Ø	15	50	100 Ø				A	MD18	
27#	2SB209	1.3	80 Ø	#J	20		40	40	30 Ø	5.0m	1.5Ø	15	20	40 Ø	2.5k	30m		A	MD18	
28#	2SB210	1.3	80 Ø	#J	30		40	40	30 Ø	5.0m	1.5Ø	15	50	100 Ø	2.5k	20m		A	MD18	
29#	2SB211	1.3	80 Ø	#J	20		80	40	60 Ø	5.0m	1.5Ø	15	20	40 Ø	2.5k	30m		A	MD18	
30#	2SB212	1.3	80 Ø	#J	30		80	40	60 Ø	5.0m	1.5Ø	15	50	100 Ø	2.5k	20m		A	MD18	
31#	2SB213	1.3	80 Ø	#J	20		100	40	75 Ø	5.0m	1.5Ø	15	20	40 Ø	2.5k	30m		A	MD18	
32#	2SB213A	1.3	80 Ø	#J	20		140	40	85 Ø	5.0m	1.5Ø	15	20	40 Ø	2.5k	30m		A	MD18	
33#	2SB214	1.3	80 Ø	#J	30		100	40	75 Ø	5.0m	1.5Ø	15	50	100 Ø	2.5k	20m		A	MD18	
34#	2SB214A	1.3	80 Ø	#J	30		140	40	85 Ø	5.0m	1.5Ø	15	50	100 Ø	2.5k	20m		A	MD18	
35#	2SB430	1.3 Ø	80	#C	20		70	1.0		20m	0.0	20	10		10kΔ			D	TO36	
36	B1181	1.3 Ø		♦	25		160	2.0	160	10mØ	1.5	15	60 Ø		2.0Mt	.03	2.0u	DA	TO3	A
37	CQT1075	1.3	90	#J	25		140	140	70	2.0mØ	2.0Ø	25	10		200k§Δ			A	TO3	CØ
38	CQT1076	1.3	90	#J	25		115	115	60	2.0mØ	2.0Ø	25	15		200k§Δ			A	TO3	CØ
39	CQT1077	1.3	90	#J	15		100	100	45	2.0mØ	2.0Ø	15	10		200k§Δ			A	TO3	CØ
40	DTG2000	1.3		♦J	25	5.0		1.0	30	10m#	2.0Ø	8.0	25		250k§	36m	9.0uØ	A	TO41	CØ
41	DTG2100	1.3		♦J	25	5.0		1.0	60	10m#	2.0Ø	8.0	25		250k§	36m	9.0uØ	A	TO41	CØ
42	DTG2200	1.3		♦J	25	5.0		1.0	80	10m#	2.0Ø	8.0	25		250k§	36m	9.0uØ	A	TO41	CØ
43	DTG2300	1.3		♦J	25	5.0		1.0	100	10m#	2.0Ø	8.0	25		250k§	36m	9.0uØ	A	TO41	CØ
44	DTG2400	1.3		♦J	25	5.0		1.0	120	10m#	2.0Ø	8.0	25		250k§	36m	9.0uØ	A	TO41	CØ
45	MHT2101	1.3		#J	150		10		5.0			150	40						MT41	
46	MHT2110	1.3		#J	150		10		5.0			150	40 Ø		450k§				MT41a	
47	MHT2111	1.3		#J	175		10		5.0			175	40 Ø		450k§				MT41a	
48	MHT2112	1.3		#J	200		10		5.0			200	40 Ø		450k§				MT41a	
49	MHT2150	1.3		#J	150		10		5.0			150	40 Ø		450k§				R121	
50	MHT2151	1.3		#J	175		10		5.0			175	40 Ø		450k§				R121	
51	MHT2152	1.3		#J	200		10		5.0			200	40 Ø		450k§				R121	
52	2N5435†	1.4	120 Ø	♦J	60	12	80	2.5	60	10m#	2.0Ø	25	20	60			12u		TO3	CØ
53	2N5436†	1.4	120 Ø	♦J	60	12	110	2.5	90	10m#	2.0Ø	25	20	60			12u		TO3	CØ
54	2N5437†	1.4	120 Ø	♦J	60	12	140	2.5	120	10m#	2.0Ø	25	20	60			12u		TO3	CØ
55	2N5438†	1.4	120 Ø	♦J	60	12	80	2.5	60	10m#	2.0Ø	25	40	120			12u		TO3	CØ
56	2N5439†	1.4	120 Ø	♦J	60	12	110	2.5	90	10m#	2.0Ø	25	40	120			12u		TO3	CØ
57	2N5440†	1.4	120 Ø	♦J	60	12	140	2.5	120	10m#	2.0Ø	25	40	120			12u		TO3	CØ
58▼	2N5692†	1.4	120 Ø	♦J	40	12	50 †	2.5†	30	10m#	2.0Ø	25	20	65			20u			
59▼	2N5693†	1.4	120 Ø	♦J	40	12	80 †	2.5†	60	10m#	2.0Ø	25	20	65			20u			
60▼	2N5694†	1.4	120 Ø	♦J	40	12	100 †	2.5†	80	10m#	2.0Ø	25	20	65			20u			
61▼	2N5695†	1.4	120 Ø	♦J	40	12	120 †	2.5†	100	10m#	2.0Ø	25	20	65			20u			
62▼	2N5696†	1.4	120 Ø	♦J	40	12	140 †	2.5†	120	10m#	2.0Ø	25	20	65			20u			
63	MHT2205	1.4	121 Ø	♦J	50	10	10	5.0	5.0	5.0m	1.0Ø	50	40 #	120 Ø	450k	3.0m		A	MT23	
64	MHT2305	1.4	121 Ø	♦J	50	10	10	5.0	5.0	5.0m	1.0Ø	50	40 #	120 Ø	450k	3.0m		A	TO36	CØ
65	2N2733	1.6	140 Ø	♦J	65	10	80	30	60	5.0m	2.0Ø	65	15		340k§	10m	10u	A	MT23	
66	2N2734	1.6	140 Ø	♦J	65	10	60	30	45	5.0m	2.0Ø	65	15		340k§	10m	10u	A	MT23	
67	2N2735	1.6	140 Ø	♦J	65	10	40	20	30	5.0m	2.0Ø	65	15		340k§	10m	10u	A	MT23	
68	2N2736	1.6	140 Ø	♦J	65	10	80	30	60	5.0m	2.0Ø	65	15		340k§	10m	10u	A	MT22	
69	2N2737	1.6	140 Ø	♦J	65	10	60	30	45	5.0m	2.0Ø	65	15		340k§	10m	10u	A	MT22	
70	2N2738	1.6	140 Ø	♦J	65	10	40	20	30	5.0m	2.0Ø	65	15		340k§	10m	10u	A	MT22	
71#	ADY26	1.6	100 Ø	#J	30	5.0	80	40	60	4.0m	0.0	25 Δ	15	25 Ø	100k		25uØ	A	ZA4	Ø
72	MHT1908	1.6	140 Ø	♦J	60	10	80	30	60	5.0m	2.0Ø	50	15		340k§	10m	10u	A	MT23	
73	MHT1909	1.6	140 Ø	♦J	60	10	60	30	45	5.0m	2.0Ø	50	15		340k§	10m	10u	A	MT23	
74	MHT1910	1.6	140 Ø	♦J	60	10	40	20	30	5.0m	2.0Ø	50	15		340k§	10m	10u	A	MT23	
75	MHT2008	1.6	140 Ø	♦J	60	10	80	30	60	5.0m	2.0Ø	50	15		340k§	10m	10u	A	MT22	
76	MHT2009	1.6	140 Ø	♦J	60	10	60	30	45	5.0m	2.0Ø	50	15		340k§	10m	10u	A	MT22	
77	MHT2010	1.6	140 Ø	♦J	60	10	40	20	30	5.0m	2.0Ø	50	15		340k§	10m	10u	A	MT22	
78	SDT1960	1.6	140		65	10	80	30	60	5.0m	2.0Ø	65	20		340k	7.0m	10u		MT23	
79	SDT1961	1.6	140		65	10	60	30	45	5.0m	2.0Ø	65	20		340k	7.0m	10u		MT23	
80	SDT1962	1.6	140		65	10	40	20	30	5.0m	2.0Ø	65	20		340k	7.0m	10u		MT23	
81#	2G210	2.0 Ø		#J	6.0	2.0	60	20	60	1.0mØ	1.5Ø	5.0	25	90	400k§	.10		A	MD6	
82	2N173	2.0	50	#J	15 Ø	4.0	60	40	45	4.0m	2.0	5.0	35	70	10k	.08	15u	AΔ	TO36	CØ
83	2N174	2.0	50	#J	15 Ø	4.0	80	60	55	4.0m	2.0	5.0	25	50	10k	.08	15u	AΔ	TO36	CØ
84	2N174A	2.0	50	#J	15 Ø	4.0	80	60	40	8.0m	2.0	1.2	40	80	15k	.06	15u	AΔ	TO36	CØ
85#	JAN2N174A	2.0	75 Ø	#S	14 Ø	4.0	80	60	40	15m	2.0Ø	1.2	40	80	100kt Δ	60m			MT56	Ø
86	2N277	2.0	50	#J	15 Ø	4.0	40	20	25	8.0m	2.0	5.0	35	70	10k		15u	AΔ	TO36	CØ
87	2N278	2.0	50	#J	15 Ø	4.0	50	30	30	4.0m	2.0	5.0	35	70	10k	.08	15u	AΔ	TO36	CØ
88	2N441	2.0	150 Ø	#J	15 Ø	4.0	40	20	25	8.0m	2.0	5.0	20	40	10k		15u	AΔ	TO36	CØ
89	2N442	2.0	150 Ø	#J	15 Ø	4.0	50	30	30	4.0m	2.0	5.0	20	40	10k		15u	AΔ	TO36	CØ
90	2N443	2.0	150 Ø	#J	15 Ø	4.0	60	40	45	4.0m	2.0	5.0	20	40	10k	90m	15u	AΔ	TO36	CØ
91	JAN2N456B	2.0	150 Ø	#J	7.0		40	30	30	500uØ	1.5Ø	5.0	30	90		100m			TO3	CØ
92	JAN2N457B	2.0	150 Ø	#J	7.0		60	35	40	500uØ	1.5Ø	5.0	30	90		100m			TO3	CØ
93	JAN2N458B	2.0	150 Ø	#J	7.0		80	40	45	500uØ	1.5Ø	5.0	30	90		100m			TO3	CØ
94	2N511	2.0	150 Ø	#J	25	5.0	40	30	30	15m	2.0Ø	10	20	60	260k§	50m		AΔ	MD4	
95	2N511A	2.0 $	150 Ø	#J	25	5.0	60	30	40	15m	2.0Ø	10	20	60	260k§	50m		AΔ	MD4	
96	2N511B	2.0 $	150 Ø	#J	25	5.0	80	30	45	15m	2.0Ø	10	20	60	260k§	50m		AΔ	MD4	
97	2N512	2.0 $	150 Ø	#J	25	5.0	40	30	30	15m	2.0Ø	15	20	60	280k§	70m		AΔ	MD4	
98	2N512A	2.0 $	150 Ø	#J	25	5.0	60	30	40	15m	2.0Ø	15	20	60	280k§	70m		AΔ	MD4	
99	2N512B	2.0 $	150 Ø	#J	25	5.0	80	30	45	15m	2.0Ø	15	20	60	280k§	70m		AΔ	MD4	
100	2N513	2.0 $	150 Ø	#J	25	5.0	40	30	30	15m	2.0Ø	20	20	60	300k§	750m		AΔ	MD4	
101	2N513A	2.0 $	150 Ø	#J	25	5.0	60	30	40	15m	2.0Ø	20	20	60	300k§	750m		AΔ	MD4	
102	2N513B	2.0 $	150 Ø	#J	25	5.0	80	30	45	15m	2.0Ø	20	20	60	300k§	750m		AΔ	MD4	
103	2N514	2.0 $	150 Ø	#J	25	5.0	40	30	30	15m	2.0Ø	25	20	60	430k§	800m		AΔ	MD4	
104	2N514A	2.0 $	150 Ø	#J	25	5.0	60	30	40	15m	2.0Ø	25	20	60	430k§	800m		AΔ	MD4	
105	2N514B	2.0 $	150 Ø	#J	25	5.0	80	30	45	15m	2.0Ø	25	20	60	430k§	800m		AΔ	MD4	
106	JAN2N1021A	2.0	150 Ø	#J	7.0		100	50	50	500uØ	1.5Ø	5.0	30	90		100m			TO3	CØ
107	JAN2N1022A	2.0	150 Ø	#J	7.0		120	60	55	500uØ	1.5Ø	5.0	30	90		100m			TO3	CØ
108	JAN2N1358	2.0	150 Ø	#S	15 Ø	4.0	80	40	40	4.0m	2.0Ø	5.0	25	50	5.0kΔ	60m			TO36	CØ
109	2N1358A†	2.0 $	50 Ø	#C	15	4.0	100	60	60	4.0m	2.0Ø	5.0	25	50	5.0k	60m	30u		TO36	AØ
110	2N1907	2.0 $	60 Ø	#J	20	3.0	100	1.5	40	10m	1.5Ø	15	20		20M§	70m		ADΔ	TO3	CØ

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AEMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1	2N1908	2.0 $	60 Ø	#J	20	3.0	130	1.5	50	10m	1.5Ø	15	20		20M§	70m		ADΔ	TO3	CØ
2	2N1980	2.0	170 Ø	♦J	15		50	20	30	6.0m	2.0Ø	5.0	50	100	3.0kΔ	100m		A	TO36	CØ
3	2N1981	2.0	170 Ø	♦J	15		70	20	40	6.0m	2.0Ø	5.0	50	100	3.0kΔ	100m		A	TO36	CØ
4	2N1982	2.0	170 Ø	♦J	15		90	20	50	6.0m	2.0Ø	5.0	50	100	3.0kΔ	100m		A	TO36	CØ
5	2N2075	2.0	170 Ø	♦J	15		80	40	65	4.0m	2.0	5.0	20	40	10k	60m	9.0u		TO36	CØ
6	2N2075A	2.0	170 Ø	♦J	15		80	40	65	4.0m	2.0	5.0	20	40	10k	60m	9.0u		TO36	CØ
7	2N2076	2.0	170 Ø	♦J	15		70	35	55	4.0m	2.0	5.0	20	40	10k	60m	9.0u		TO36	CØ
8	2N2076A	2.0	170 Ø	♦J	15		70	35	55	4.0m	2.0	5.0	20	40	10k	60m	9.0u		TO36	CØ
9	2N2077	2.0	170 Ø	♦J	15		50	25	45	4.0m	2.0	5.0	20	40	10k	60m	9.0u		TO36	CØ
10	2N2077A	2.0	170 Ø	♦J	15		50	25	45	4.0m	2.0	5.0	20	40	10k	60m	6.0u	A	TO36	CØ
11	2N2078	2.0	170 Ø	♦J	15		40	20	25	4.0m	2.0	5.0	20	40	10k	60m	9.0u		TO36	CØ
12	2N2078A	2.0	170 Ø	♦J	15		40	20	25	4.0m	2.0	5.0	20	40	10k	60m	9.0u		TO36	CØ
13	2N2079	2.0	170 Ø	♦J	15		80	40	65	4.0m	2.0	5.0	35	70	10k	60m	6.0u		TO36	CØ
14	2N2079A	2.0	170 Ø	♦J	15		80	40	65	4.0m	2.0	5.0	35	70	10k	60m	6.0u		TO36	CØ
15	2N2080	2.0	170 Ø	♦J	15		70	35	55	4.0m	2.0	5.0	35	70	10k	60m	6.0u		TO36	CØ
16	2N2080A	2.0	170 Ø	♦J	15		70	35	55	4.0m	2.0	5.0	35	70	10k	60m	6.0u		TO36	CØ
17	2N2081	2.0	170 Ø	♦J	15		50	25	45	4.0m	2.0	5.0	35	70	10k	80m	6.0u		TO36	CØ
18	2N2081A	2.0	170 Ø	♦J	15		50	25	45	4.0m	2.0	5.0	35	70	10k	80m	6.0u		TO36	CØ
19	2N2082	2.0	170 Ø	♦J	15		40	20	25	4.0m	2.0	5.0	35	70	10k	80m	6.0u		TO36	CØ
20	2N2082A	2.0	170 Ø	♦J	15		40	20	25	4.0m	2.0	5.0	35	70	10k	80m	6.0u		TO36	CØ
21	2N2152	2.0 Ø	170 Ø	♦J	30		45	25	30	4.0m	2.0Ø	5.0	50	100	2.7k	20m		A	TO36	CØ
22	2N2152A	2.0	170 Ø	♦J	30	30 Ø	45	25	30	4.0m	2.0	5.0	50	100	2.0k	20m			TO36	CØ
23	2N2153	2.0 Ø	170 Ø	♦J	30		60	30	45	4.0m	2.0Ø	5.0	50	100	2.7k	20m		A	TO36	CØ
24	2N2153A	2.0	170 Ø	♦J	30	30 Ø	60	30	45	4.0m	2.0	5.0	50	100	2.0k	20m			TO36	CØ
25	2N2154	2.0 Ø	170 Ø	♦J	30		75	40	60	4.0m	2.0Ø	5.0	50	100	2.7k	20m		A	TO36	CØ
26	2N2154A	2.0	170 Ø	♦J	30	30 Ø	75	40	60	4.0m	2.0	5.0	50	100	2.0k	20m			TO36	CØ
27	2N2156	2.0 Ø	170 Ø	♦J	30		45	25	30	4.0m	2.0Ø	5.0	80	160	2.7k	20m		A	TO36	CØ
28	2N2156A	2.0	170 Ø	♦J	30	30 Ø	45	25	30	4.0m	2.0	5.0	80	160	2.0k	20m			TO36	CØ
29	2N2157	2.0	170 Ø	♦J	30		60	30	45	4.0m	2.0Ø	5.0	80	160	2.7k	20m		A	TO36	CØ
30	2N2157A	2.0	170 Ø	♦J	30	30 Ø	60	30	45	4.0m	2.0	5.0	80	160	2.0k	20m			TO36	CØ
31	2N2158	2.0	170 Ø	♦J	30		75	40	60	4.0m	2.0Ø	5.0	80	160	2.7k	20m		A	TO36	CØ
32	2N2158A	2.0	170 Ø	♦J	30	30 Ø	75	40	60	4.0m	2.0	5.0	80	160	2.0k	20m			TO36	CØ
33	2N2357	2.0	170 Ø	♦J	50		60	2.5	60	5.0m	1.5Ø	20	30	90		18m		DAΔ	TO41	CØ
34	2N2358	2.0	170 Ø	♦J	50		80	2.5	80	5.0m	1.5Ø	20	30	90		18m		DAΔ	TO41	CØ
35	2N2359	2.0	170 Ø	♦J	50		120	2.5	120	5.0m	1.5Ø	20	30	90		18m		DAΔ	TO41	CØ
36	2N2490	2.0	170 Ø	♦J	15		70	40	50	3.0m	2.0	5.0	20	40	10k	60m	20u	AΔ	TO36	CØ
37	2N2491	2.0	170 Ø	♦J	15		60	30	40	3.0m	2.0	5.0	35	70	10k	60m	20u	AΔ	TO36	CØ
38	2N2492	2.0	170 Ø	♦J	15		80	60	65	2.0m	2.0	5.0	25	50	10k	40m	20u	AΔ	TO36	CØ
39	2N2493	2.0	170 Ø	♦J	15		100	80	75	3.0m	2.0	5.0	25	50	10k	40m	20u	AΔ	TO36	CØ
40	2N2691A†	2.0	170 Ø	♦C	20	5.0	120	5.0	80	5.0m	1.5Ø	20	50	100	600k§Δ	30m	700u		TO41	CØ
41	2N2728†	2.0	170 Ø	♦C	50	10	15	15	5.0	10m#	2.0Ø	20	40	130	3.0kΔ	2.0m	25u		TO36	CØ
42	2N2730	2.0	170 Ø	♦J	65	10	80	30	60	5.0m	2.0Ø	65	15		340k§	10m	10u	A	TO36	CØ
43	2N2731	2.0	170 Ø	♦J	65	10	60	30	45	5.0m	2.0Ø	65	15		340k§	10m	10u	A	TO36	CØ
44	2N2732	2.0	170 Ø	♦J	65	10	40	20	30	5.0m	2.0Ø	65	15		340k§	10m	10u	A	TO36	CØ
45	2N3146	2.0	150 Ø	#C	15	3.0	150	60	65 Ø	10m	1.5Ø	5.0	30	90	200k§Δ	80m		A	TO3	Ø
46	2N3147	2.0	150 Ø	#C	15	3.0	180	80	75 Ø	10m	1.5Ø	5.0	30	90	200k§Δ	80m		A	TO3	Ø
47	2N3311	2.0	170 Ø	♦J	5.0	5.0	30	20	20	5.0m	2.0Ø	3.0	60	120	1.0kΔ			A	TO36	CØ
48	2N3312	2.0	170 Ø	♦J	5.0	5.0	45	25	30	5.0m	2.0Ø	3.0	60	120	1.0kΔ			A	TO36	CØ
49	2N3313	2.0	170 Ø	♦J	5.0	5.0	60	30	40	5.0m	2.0Ø	3.0	60	120	1.0kΔ			A	TO36	CØ
50	2N3314	2.0	170 Ø	♦J	5.0	5.0	30	20	20	5.0m	2.0Ø	3.0	100	200	1.0kΔ			A	TO36	CØ
51	2N3315	2.0	170 Ø	♦J	5.0	5.0	45	25	30	5.0m	2.0Ø	3.0	100	200	1.0kΔ			A	TO36	CØ
52	2N3316	2.0	170 Ø	♦J	5.0	5.0	60	30	40	5.0m	2.0Ø	3.0	100	200	1.0kΔ			A	TO36	CØ
53	2N4048†	2.0	170 Ø	♦J	60	10	45	25	30	4.0m	2.0Ø	15	60	120 #	2.0kΔ		20uØ		TO36	CØ
54	2N4049†	2.0	170 Ø	♦J	60	10	60	30	45	4.0m	2.0Ø	15	60	120 #	2.0kΔ		20uØ		TO36	CØ
55	2N4050†	2.0	170 Ø	♦J	60	10	75	40	60	4.0m	2.0Ø	15	60	120 #	2.0kΔ		20uØ		TO36	CØ
56	2N4051†	2.0	170 Ø	♦J	60	10	45	25	30	4.0m	2.0Ø	15	80	180 #	2.0kΔ		20uØ		TO36	CØ
57	2N4052†	2.0	170 Ø	♦J	60	10	60	30	45	4.0m	2.0Ø	15	80	180 #	2.0kΔ		20uØ		TO36	CØ
58	2N4053†	2.0	170 Ø	♦J	60	10	75	40	60	4.0m	2.0Ø	15	80	180 #	2.0kΔ		20uØ		TO36	CØ
59	2N4276†	2.0	170 Ø	♦J	60	10	30	20	20	4.0m	2.0Ø	15	60	120 #	2.0kΔ		20uØ		TO3	CØ
60	2N4277†	2.0	170 Ø	♦J	60	10	30	20	20	4.0m	2.0Ø	15	80	180 #	2.0kΔ		20uØ		TO3	CØ
61	2N4278†	2.0	170 Ø	♦J	60	10	45	25	30	4.0m	2.0Ø	15	60	120 #	2.0kΔ		20uØ		TO3	CØ
62	2N4279†	2.0	170 Ø	♦J	60	10	45	25	30	4.0m	2.0Ø	15	80	180 #	2.0kΔ		20uØ		TO3	CØ
63	2N4280†	2.0	170 Ø	♦J	60	10	60	30	45	4.0m	2.0Ø	15	60	120 #	2.0kΔ		20uØ		TO3	CØ
64	2N4281†	2.0	170 Ø	♦J	60	10	60	30	45	4.0m	2.0Ø	15	80	180 #	2.0kΔ		20uØ		TO3	CØ
65	2N4282†	2.0	170 Ø	♦J	60	10	75	40	60	4.0m	2.0Ø	15	60	120 #	2.0kΔ		20uØ		TO3	CØ
66	2N4283†	2.0	170 Ø	♦J	60	10	75	40	60	4.0m	2.0Ø	15	80	180 #	2.0kΔ		20uØ		TO3	CØ
67	MHT1808	2.0	170 Ø	♦J	60	10	80	30	60	5.0m	2.0Ø	50	15		340k§	10m	10u	A	TO36	CØ
68	MHT1809	2.0	170 Ø	♦J	60	10	60	30	45	5.0m	2.0Ø	50	15		340k§	10m	10u	A	TO36	CØ
69	MHT1810	2.0	170 Ø	♦J	60	10	40	20	30	5.0m	2.0Ø	50	15		340k§	10m	10u	A	TO36	CØ
70	MP500	2.0	170 Ø	♦J	60		45	25	30	200uØ	2.0Ø	50	12	20 Ø	2.0kΔ	9.0m		A	TO36	CØ
71	MP500A	2.0	170 Ø	♦J	60		45	25	30	200uØ	2.0Ø	50	12	20 Ø	2.0kΔ	9.0m		A	TO36	CØ
72	MP501	2.0	170 Ø	♦J	60		60	30	45	200uØ	2.0Ø	50	12	20 Ø	2.0kΔ	9.0m		A	TO36	CØ
73	MP501A	2.0	170 Ø	♦J	60		60	30	45	200uØ	2.0Ø	50	12	20 Ø	2.0kΔ	9.0m		A	TO36	CØ
74	MP502	2.0	170 Ø	♦J	60		75	40	60	200uØ	2.0Ø	50	12	20 Ø	2.0kΔ	9.0m		A	TO36	CØ
75	MP502A	2.0	170 Ø	♦J	60		75	40	60	200uØ	2.0Ø	50	12	20 Ø	2.0kΔ	9.0m		A	TO36	CØ
76	MP504	2.0	170 Ø	♦J	60		45	25	30	200uØ	2.0Ø	50	12	20 Ø	2.0kΔ	9.0m		A	TO36	CØ
77	MP504A	2.0	170 Ø	♦J	60		45	25	30	200uØ	2.0Ø	50	12	20 Ø	2.0kΔ	9.0m		A	TO36	CØ
78	MP505	2.0	170 Ø	♦J	60		60	30	45	200uØ	2.0Ø	50	12	20 Ø	2.0kΔ	9.0m		A	TO36	CØ
79	MP505A	2.0	170 Ø	♦J	60		60	30	45	200uØ	2.0Ø	50	12	20 Ø	2.0kΔ	9.0m		A	TO36	CØ
80	MP506	2.0	170 Ø	♦J	60		75	40	60	200uØ	2.0Ø	50	12	20 Ø	2.0kΔ	9.0m		A	TO36	CØ
81	MP506A	2.0	170 Ø	♦J	60		75	40	60	200uØ	2.0Ø	50	12	20 Ø	2.0kΔ	9.0m		A	TO36	CØ
82	SDT1860	2.0	170		65	10	80	30	60	5.0m	2.0Ø	65	20		340k§	7.0m	10u		TO36	
83	SDT1861	2.0	170		65	10	60	30	45	5.0m	2.0Ø	65	20		340k	7.0m	10u		TO36	
84	SDT1862	2.0	170		65	10	40	20	30	5.0m	2.0Ø	65	20		340k	7.0m	10u		TO36	
85	TI3027	2.0	2.0	#C	7.0	3.0	45 †	20	40 §	1.0mØ♦	2.0Ø	3.0	40	250 #	200k§Δ			A	TO3	CØ
86	TI3028	2.0	2.0	#C	7.0	3.0	60 †	20	50 §	1.0mØ♦	2.0Ø	3.0	40	250 #	200k§Δ			A	TO3	CØ
87	TI3029	2.0	2.0	#C	7.0	3.0	80 †	20	55 §	1.0mØ♦	2.0Ø	3.0	40	250 #	200k§Δ			A	TO3	CØ
88	TI3030	2.0	2.0	#C	7.0	3.0	100 †	20	60 §	1.0mØ♦	2.0Ø	3.0	40	250 #	200k§Δ			A	TO3	CØ
89	TI3031	2.0	2.0	#C	7.0	3.0	120 †	20	65 §	1.0mØ♦	2.0Ø	3.0	40	250 #	200k§Δ			A	TO3	CØ
90	2N574	2.5	187 Ø	#J	10	2.0	60	28	55	7.0m	2.0Ø	10	9.0	22	100k§	20m	20u	A	MT7	
91	JAN2N574	2.5	187 Ø	#J	10		60	28	55	7.0m	2.0Ø	10	9.0	22		20m			MT7	
92	2N574A	2.5	187 Ø	#J	10	2.0	80	28	60	20m	2.0Ø	10	9.0	22	100k§	20m	20u	A	MT7	
93	2N575	2.5	187 Ø	#J	25	3.8	60	28	50	7.0m	2.0Ø	25	10		150k§	20m	15u	AΔ	MT7	
94	JAN2N575	2.5	187 Ø	#J	25		60	28	50	7.0m	2.0Ø	100m	19	42		20m			MT7	
95	2N575A	2.5	187 Ø	#J	25	3.8	80	28	55	20m	2.0Ø	25	10		150k§	20m	15u	AΔ	MT7	
96	JAN2N575A	2.5	187 Ø	#J	25		80	28	55	20m	2.0Ø	10	19	42		20m			MT7	
97	2N1157	2.5	187 Ø	#J	40	6.0	60	28	45	7.0m	2.0Ø	40	10		200k§	20m	10u		MT7	
98	2N1157A	2.5	187 Ø	#J	40	6.0	80	28	50	20m	2.0Ø	40	10		200k§	20m	10u		MT7	
99	JAN2N1157A	2.5	187 Ø	#J	40		80	28	50	20m	2.0Ø	10	38	84		20m			MT7	
100#	AD139	2.5	13	#J		.20	32	10	32	25uØ	0.0	1.0 Δ	33	110	10k			A	MD11	
101	DA3F3	2.5	187 Ø	#J		2.5	60	65	35		2.0Ø	10	25				12u		MT7	
102	MP800	3.0	250 Ø	♦J	150			20	60	12mØ	2.0Ø	150	15						X71	A
103	MP801	3.0	250 Ø	♦J	150			20	45	12mØ	2.0Ø	150	15						X71	A
104	MP900†	3.0	250 Ø	♦J	150		80	2.0	60	10m	2.0Ø	70	20			3.0m	25u		X71	A
105	MP901†	3.0	250 Ø	♦J	150		110	2.0	90	10m	2.0Ø	70	20			3.0m	25u		X71	A
106	MP902†	3.0	250 Ø	♦J	150		140	2.0	120	10m	2.0Ø	70	20			3.0m	25u		X71	A

9. GERMANIUM NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT EX MP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DESCRIPTION DWG. No.	LEAD CODE
1	2N142/13		4.0		.80		60	30	30	2.0m	4.0	.25	11			6.0			TO13	FØ
2#	AC181K		2.5 Ø	#J	1.0		32	10	24 §	20uØ	1.0Ø	600m	50		1.0M§△				* X9b	
3#	AC194	2.5mØ	1.0 #	#C	1.0		25	10	25 Ø	25uØ		400m△	200 Ø		5.0M			A	TO1	
4#	AC194K	2.5mØ	1.0 #	#C	1.0		25	10	25 Ø	25uØ		400m△	200 Ø		5.0M			A	TO1	
5	2N4105	25m	1.6 Ø	#S	1.0		25	10		25uØ	10	5.0m△	70	350					TO1	A
6#	BDY15A	77m	12 Ø	§J	2.5		36	5.0	36	100nØ	2.0Ø	500m	50	150	100M§			PE	MD6g	AØ
7#	BDY15B	77m	12 Ø	§J	2.5		36	5.0	36	100nØ	2.0Ø	500m	100	300	100M§			PE	MD6g	AØ
8#	BDY15C	77m	12 Ø	§J	2.5		36	5.0	36	100nØ	2.0Ø	500m	200	600	100M§			PE	MD6g	AØ
9#	BDY16A	77m	12 Ø	§J	2.5		64	5.0	64	100nØ	2.0Ø	500m	50	150	100M§			PE	MD6g	AØ
10#	BDY16B	77m	12 Ø	§J	2.5		64	5.0	64	100nØ	2.0Ø	500m	100	300	100M§			PE	MD6g	AØ
11	2N102/13	80m	1.0	ØJ	1.5		30	15	30	2.0m	1.5Ø	500m	11			2.0		A	TO13	FØ
12	2N144/13	80m	1.0	ØJ	800m		60	30	60	6.0m	4.5Ø	250m	11			6.0		A	TO13	FØ
13	JAN2N326	116m	7.0 Ø	#J	2.0		35	15	35 Ø	500u	1.0Ø	1.0	15	60	150kt△	1.2			TO3	CØ
14	2N4077	116m	7.5 Ø	#A	1.0		32	10	20	25uØ	1.0Ø	500m	50	300	1.0M§△	1.2			MD17	Ø
15#	AD165	117m	6.0	#J	1.0		25	10	20	30uØ	1.0Ø	500m	60	185 Ø	20k			A	MD17	
16	2N326	125mØ	7.0 Ø	#J	2.0		35		35	300u	1.0Ø	1.0	15	60	150kt△	1.2		A	MD9	
17#	AD161	222m	4.0	#J	1.0		32	10	20	500u	1.0Ø	500m	80	320	3.0M§			A	MD17c	
18	2N1218	270m	20 Ø	#C	3.0		45	15	45 §	100u	1.5Ø	1.0	30	120	7.0k△	1.0	1.5u	A	TO3	CØ
19	2N1292	333mØ	25 Ø	#J	3.0		35	15	30	1.0	2.0Ø	500m	30			1.0			TO3	CØ
20	2N1294	333mØ	25 Ø	#J	3.0		60	15	45	2.0	2.0Ø	500m	30			1.0			TO3	CØ
21	2N1296	333mØ	25 Ø	#J	3.0		80	15	60 Ø	3.0	2.0Ø	500m	30			1.0			TO3	CØ
22	2N1298	333mØ	25 Ø	#J	3.0		100	15	80	4.0	2.0Ø	500m	30			1.0			TO3	CØ
23	2N1321	333mØ	25 Ø	#J	3.0		35	15	30	1.0	2.0Ø	500m	30			1.0			TO10	FØ
24	2N1323	333mØ	25 Ø	#J	3.0		60	15	45	2.0	2.0Ø	500m	30			1.0			TO10	FØ
25	2N1325	333mØ	25 Ø	#J	3.0		80	15	60	3.0	2.0Ø	500m	30			1.0			TO10	FØ
26	2N1327	333m	25 Ø	#J	3.0		100	15	80	4.0	2.0Ø	500m	30			1.0			TO10	FØ
27	2N1329	333m	25 Ø	#J	3.0		35	15	30	1.0	2.0Ø	500m	30			1.0			TO13	FØ
28	2N1330	333m	25 Ø	#J	3.0		60	15	45	2.0	2.0Ø	500m	30			1.0			TO13	FØ
29	2N1332	333m	25 Ø	#J	3.0		80	15	60	3.0	2.0Ø	500m	30			1.0			TO13	FØ
30	2N1334	333m	25 Ø	#J	3.0		100	15	80	4.0	2.0Ø	500m	30			1.0			TO13	FØ

10. SILICON PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	2SA565		350		.50		50	4.0	50	.50m	3.0Ø	10	40	200					TO1	
2#	2SA566		10 Ø		.70		120	4.0	100		4.0Ø	50	35	200	200M§			PE	TO66	
3#	2SA597		6.0	§J	1.0		50	4.0	40	1.0u	3.0Ø	150m	10	250	400k§			PE	TO39	A
4	TRSP3254S		1.0		.40	.40	350	5.0	325	.02m	10	20	30		30M				TO5	
5	TRSP3255S		2.0		.40	.40	350	5.0	325	.02m	10	20	30		30M				MD14	
6	TRSP3504S		1.0		.40	.40	375	5.0	350	.02m	10	20	30		30M				TO5	
7	TRSP3505S		2.0		.40	.40	375	5.0	350	.02m	10	20	30		30M				MD14	
8	TRSP3754S		1.0		.40	.40	400	5.0	375	.02m	10	20	30		30M				TO5	
9	TRSP3755S		2.0		.40	.40	400	5.0	375	.02m	10	20	30		30M				MD14	
10	2N5023†	2.2m	1.0 Ø	§S	500m		30	5.0	3.0	1.0u§	1.0Ø	500m	40	100	200M§Δ		1.7		TO39	AØ
11	2N5091	2.6m$	2.0 Ø	§A	1.0	500m	350	6.0	300	500nØ	15Ø	100m	20	200	20M§Δ	120			TO5	AØ
12	2N5093	2.6m$	2.0 Ø	§A	1.0	500m	400	6.0	350	500nØ	15Ø	100m	20	200	20M§Δ	120			TO5	AØ
13	2N5094	2.6m$	2.0 Ø	§A	1.0	500m	450	6.0	400	500nØ	15Ø	100m	20	200	20M§Δ	120			TO5	AØ
14	2N5096	2.6m$	2.0 Ø	§A	1.0	500m	500	6.0	450	500nØ	15Ø	100m	20	200	20M§Δ	120			TO5	AØ
15	JAN2N3467†	2.8m	1.0	§S	1.0		40	5.0	40	100nØ	1.0Ø	500m	40	120	175M§Δ	1.2	30n		TO5	AØ
16	JAN2N3468†	2.8m	1.0	§S	1.0		50	5.0	50	100u	1.0Ø	500m	25	75	150M§Δ	1.2	30n		TO5	AØ
17	JAN2N3634†	2.8m	1.0	§S	1.0		140	5.0	140	100u	10Ø	50m	50	150 #	150M§Δ		400nØ	Ø	TO5	AØ
18	JAN2N3635†	2.8m	1.0	§J	1.0		140	5.0	140	100u	10Ø	50m	100	300 #	200M§Δ		400nØ	Ø	TO5	AØ
19	JAN2N3636†	2.8m	1.0	§J	1.0		175	5.0	175	100u	10Ø	50m	50	150 #	150M§Δ		400nØ	Ø	TO5	AØ
20	JAN2N3637†	2.8m	1.0	§J	1.0		175	5.0	175	100u	10Ø	50m	100	300 #	200M§Δ		400nØ	Ø	TO5	AØ
21	2N4036†	2.8m	5.0 Ø	§J	1.0	500m	90	7.0	65	100u	10Ø	150m	40	140	60M§Δ	4.3	70n		TO5	Ø
22	2N5160	2.8m	5.0 Ø	§J	400m		60	4.0	40	1.0uØ	5.0Ø	50m	10		500M§Δ				TO39	AØ
23	2N5281	2.8m$	2.0 Ø	§A	1.0	500m	175	5.0	150	1.0uØ	10Ø	1.0m	20	200	20M§Δ	5.0m			TO5	AØ
24	2N5282	2.8m$	2.0 Ø	§A	1.0	500m	325	5.0	300	1.0uØ	10Ø	1.0m	20	200	20M§Δ	5.0m			TO5	AØ
25	40406	2.8m	1.0	§J	700m	200m		4.0	50	1.0uΔ	10Ø	100u	30	200	100M§			D	TO5	AØ
26	2N3467†	5.6m	1.0	§S	1.0		40	5.0	40	100nØ	1.0Ø	500m	40	120 #	175M§Δ		30n	TO5	AØ	
27	2N3468†	5.6m	1.0	§S	1.0		50	5.0	50	100nØ	1.0Ø	500m	25	75 #	150M§Δ		30n	TO5	AØ	
28	2N4037	5.6m	1.0	§S	1.0	500m	60	7.0	40	250n	10Ø	150m	50	250	60M§Δ	930m			TO5	AØ
29	2N4234	5.6m	1.0	§J	1.0	200m	40	7.0	40	100u	1.0Ø	250m	30	150 #	3.0M§Δ				TO5	AØ
30	2N4235	5.6m	1.0	§J	1.0	200m	60	7.0	60	100u	1.0Ø	250m	30	150 #	3.0M§Δ				TO5	AØ
31	2N4236	5.6m	1.0	§J	1.0	200m	80	7.0	80	100u	1.0Ø	250m	30	150 #	3.0M§Δ				TO5	AØ
32	2N4314	5.6m	1.0	§S	1.0	500m	90	7.0	65	250nØ	10Ø	150m	50	250	200M§Ø	9.3			TO5	AØ
33	40537	5.6mØ	1.0	§J	700m	200m		5.0	55 §	100u*	4.0Ø	50 Ø	50	300	100M§	22		DPE	TO5	AØ
34	40538	5.6mØ	1.0	§J	700m	200m		5.0	55 §	100u*	4.0Ø	500 Ø	15	90 #	100M§	4.0		DPE	TO5	AØ
35	MM4001	5.6mØ	1.0	§J	500m		150	4.0	150 *	1.0uØ	10Ø	10m	20 #					EA	TO39	AØ
36	MM4002	5.6mØ	1.0	§J	500m		200	4.0	200 *	5.0uØ	10Ø	10m	20 #					EA	TO39	AØ
37	MM4003	5.6mØ	1.0	§J	500m		250	4.0	250 *	5.0uØ	10Ø	10m	20 #					EA	TO39	AØ
38	JAN2N3763†	5.7m	1.0	§J	1.5		60	5.0	60 *	100nØ	1.0Ø	10m	35		150M§Δ	10	35n		TO5	AØ
39▼	2N5679	5.7m	1.0	§J	1.0	500m	100 †	4.0†	100	1.0u	2.0Ø	1.0	40	150	30M§Δ	2.0			TO5	AØ
40▼	2N5680	5.7m	1.0	§J	1.0	500m	120 †	4.0†	120	1.0u	2.0Ø	1.0	40	150	30M§Δ	2.0			TO5	AØ
41	2N5147	5.9m	1.0	§J	2.0	1.0	100	5.5	80	1.0m#	5.0Ø	1.0	30	90	50M§Δ				TO39	AØ
42	2N5149	5.9m	1.0	§J	2.0	1.0	100	5.5	80	1.0m#	5.0Ø	1.0	70	120	60M§Δ				TO39	AØ
43	2N5151	5.9m	1.0	§J	5.0	2.5	100	5.5	80	1.0m#	5.0Ø	2.5	30	90	60M§Δ				TO39	AØ
44	2N5153	5.9m	1.0	§J	5.0	2.5	100	5.5	80	1.0m#	5.0Ø	2.5	70	200	70M§Δ				TO39	AØ
45	TRSP2254	6.6mØ	1.0	§A	400m	50m	225	5.0	225 §	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
46	TRSP2254S	6.6mØ	1.0	§A	400m	50m	250	5.0	225	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
47	TRSP2504	6.6mØ	1.0	§A	400m	50m	250	5.0	250 §	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
48	TRSP2504S	6.6mØ	1.0	§A	400m	50m	275	5.0	250	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
49	TRSP2754	6.6mØ	1.0	§A	400m	50m	275	5.0	275 §	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
50	TRSP2754S	6.6mØ	1.0	§A	400m	50m	300	5.0	275	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
51	TRSP3014	6.6m§	1.0	§A	400m	50m	300	5.0	300 §	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
52	TRSP3014S	6.6m§	1.0	§A	400m	50m	325	5.0	300	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
53	TRSP3504	6.6m§	1.0	§A	400m	50m	350	5.0	350 §	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
54	TRSP3514S	6.6m§	1.0	§A	400m	50m	375	5.0	350	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
55	TRSP4014	6.6m§	1.0	§A	400m	50m	400	5.0	400 §	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
56	TRSP4014S	6.6m§	1.0	§A	400m	50m	425	5.0	400	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
57	TRSP4254S	6.6mØ	1.0	§A	400m	50m	450	5.0	425	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
58	TRSP4504	6.6mØ	1.0	§A	400m	50m	450	5.0	450 §	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
59	TRSP4504S	6.6mØ	1.0	§A	400m	50m	475	5.0	450	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
60	TRSP4754S	6.6mØ	1.0	§A	400m	50m	500	5.0	475	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
61	TRSP5014	6.6mØ	1.0	§A	400m	50m	500	5.0	500 §	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
62	TRSP5014S	6.6mØ	1.0	§A	400m	50m	525	5.0	500	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200p	DMΔ	TO5	
63	D27D1†	10m	2.0	§J	3.0			5.0	40	10u§	1.0Ø	200m	40	120	40M§	750m	50nØ	PL	X51	BØ
64	D27D2†	10m	2.0	§J	3.0			5.0	40	10u§	1.0Ø	200m	25		40M§	750m	50nØ	PL	X51	BØ
65	D27D3†	10m	2.0	§J	3.0			5.0	30	10u§	1.0Ø	200m	40	120	40M§	750m	50nØ	PL	X51	BØ
66	D27D4†	10m	2.0	§J	3.0			5.0	30	10u§	1.0Ø	200m	25		40M§	750m	50nØ	PL	X51	BØ
67	ST72039	10m	10 Ø	§J	5.0		100	10	100	20u	10	2.0	20	120		450m	1.5u	PE	TO5	
68	ST72040	10m	10 Ø	§J	5.0		80	10	80	20u	10	2.0	20	120		450m	1.5u	PE	TO5	
69	ST72041	10m	10 Ø	§J	5.0		120	10	120	20u	10	2.0	20	120		450m	1.5u	PE	TO5	
70	STC5802	10m	18 Ø	§J	3.0		40	10	40		3.0Ø	1.0	20	60		300m		DΔ	TO37	
71	STC5803	10m	18 Ø	§J	3.0		60	10	60		3.0Ø	1.0	20	60		300m		DΔ	TO37	
72	STC5804	10m	18 Ø	§J	3.0		80	10	80		3.0Ø	1.0	20	60		300m		DΔ	TO37	
73	STC5805	10m	18 Ø	§J	2.0		40	10	40		3.0Ø	500m	20	60		800m		DΔ	TO37	
74	STC5806	10m	18 Ø	§J	2.0		60	10	60		3.0Ø	500m	20	60		800m		DΔ	TO37	
75	STC5807	10m	18 Ø	§J	2.0		80	10	80		3.0Ø	500m	20	60		800m		DΔ	TO37	
76	2N3485†	11m	2.0 Ø	§S	600m		60	5.0	40	20n	10Ø	150m	40	120 #	200M§	3.2	40n	EA	TO46	AØ
77	2N3486†	11m	2.0 Ø	§S	600m		60	5.0	40	20n	10Ø	150m	100	300 #	200M§	3.2	40n	EA	TO46	AØ
78	2N5229Ø	12m	2.0 Ø	§S	50m		15	15		1.0nØ	1.0Ø	100u	50		8.0M§Δ				TO46	AØ
79	2N5230Ø	12m	2.0 Ø	§S	50m		30	30		1.0nØ	1.0Ø	100u	50		8.0M§Δ				TO46	AØ
80	2N5231Ø	12m	2.0 Ø	§S	50m		50	50		1.0nØ	1.0Ø	100u	50		8.0M§Δ				TO46	AØ
81	TRSP2255	13mØ	2.0	§A	400m	50m	225	5.0	225 §	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
82	TRSP2255S	13mØ	2.0	§A	400m	50m	250	5.0	225	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
83	TRSP2505	13mØ	2.0	§A	400m	50m	250	5.0	250 §	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
84	TRSP2505S	13mØ	2.0	§A	400m	50m	275	5.0	250	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
85	TRSP2755	13mØ	2.0	§A	400m	50m	275	5.0	275 §	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
86	TRSP2755S	13mØ	2.0	§A	400m	50m	300	5.0	275	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
87	TRSP3015	13mØ	2.0	§A	400m	50m	300	5.0	300 §	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
88	TRSP3015S	13mØ	2.0	§A	400m	50m	325	5.0	300	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
89	TRSP3505	13mØ	2.0	§A	400m	50m	350	5.0	350 §	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
90	TRSP3515S	13mØ	2.0	§A	400m	50m	375	5.0	350	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
91	TRSP4015	13mØ	2.0	§A	400m	50m	400	5.0	400 §	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
92	TRSP4015S	13mØ	2.0	§A	400m	50m	425	5.0	400	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
93	TRSP4255S	13mØ	2.0	§A	400m	50m	450	5.0	425	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
94	TRSP4505	13mØ	2.0	§S	400m	50m	450	5.0	450 §	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
95	TRSP4505S	13mØ	2.0	§A	400m	50m	475	5.0	450	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
96	TRSP4755S	13mØ	2.0	§A	400m	50m	500	5.0	475	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
97	TRSP5015	13mØ	2.0	§S	400m	50m	500	5.0	500 §	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
98	TRSP5015S	13mØ	2.0	§S	400m	50m	525	5.0	500	3.0uØ	10Ø	25m	25 #	50 Ø	20M§Δ	200	200n	DMΔ	MD14	
99	40391	20mØ	3.5	§J	1.0	500m	60	7.0	40	250n	10Ø	1.0m	15		60M§Δ	9.3		DPEΔ	MM9	
100	40410	20mØ	3.0 #	§J	700m	200m		5.0	90 §	1.0m*	4.0Ø	150m	50	250	100M§Δ	9.3		D	MM9	
101	2N3762†	22m	1.0	§S	1.5		40	5.0	40	100n#	1.5Ø	1.0	30	120	180M§Δ	10	40n		TO5	AØ
102	2N3763†	22m	1.0	§S	1.5		60	5.0	60	100n#	1.5Ø	1.0	20	80	150M§Δ	10	40n		TO5	AØ
103	2N5022†	25m	1.0 Ø	§S	500m		50	5.0	50	100n§	1.0Ø	500m	25	100	170M§Δ	800m	30n		TO39	AØ
104	2N3244†	28m	1.0	§J	1.0		40	5.0	40	50nØ	1.0Ø	500m	50	150 #	175M§Δ		35nØ		TO5	AØ
105	2N3245†	28m	1.0	§J	1.0		50	5.0	50	50nØ	1.0Ø	500m	30	90 #	150M§Δ		40nØ		TO5	AØ
106	2N3634†	28m	1.0	§S	1.0		140	5.0	140	100nØ	10Ø	50m	50	150	150k§Δ	40	400nØ	Ø	TO5	AØ
107	2N3635†	28m	1.0	§S	1.0		140	5.0	140	100nØ	10Ø	50m	100	300	200k§Δ	40	400nØ	Ø	TO5	AØ
108	2N3636†	28m	1.0	§S	1.0		175	5.0	175	100nØ	10Ø	50m	50	150	150k§Δ	40	400mØ	Ø	TO5	AØ
109	2N3637†	28m	1.0	§S	1.0		175	5.0	175	100nØ	10Ø	50m	100	300	200k§Δ	40	400mØ	Ø	TO5	AØ
110	2N3743	28m	1.0	§S	50m		300	5.0	300	300nØ	10Ø	30m	25	250	30M§Δ	500			TO5	AØ

10. SILICON PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N4404†	28m	5.0 Ø	§S	500m		80	5.0	80	25nØ	5.0Ø	150m	40	120 #	200M§Δ		25n		TO39	AØ
2	2N4405†	28m	5.0 Ø	§S	500m		80	5.0	80	25nØ	5.0Ø	150m	100	300 #	200M§Δ		25n		TO39	AØ
3	2N4406†	28m	5.0 Ø	§S	1.5		80	5.0	80	25nØ	5.0Ø	500m	30	120 #	150M§Δ		60n		TO39	AØ
4	2N4407†	28m	5.0 Ø	§S	1.5		80	5.0	80	25nØ	5.0Ø	500m	80	240 #	150M§Δ		60n		TO39	AØ
5♦	2N4890†	28m	1.0	§S	500m		60	5.0	40	250n#	10Ø	150m	50	250	100M§Δ	9.3	50n		TO5	AØ
6	2N4929	28m	1.0	§S	500m		150	4.0	150	500nØ	10Ø	1.0	20		100M§Δ				TO5	AØ
7	2N4930	28m	1.0	§S	500m		200	4.0	200	1.0uØ	10Ø	1.0	20		20M§Δ				TO5	AØ
8	2N4931	28m	1.0	§S	500m		250	4.0	250	1.0uØ	10Ø	1.0	20		20M§Δ				TO5	AØ
9	2N5583	28m	5.0 Ø	§S	500m		30	3.0	30	50nØ	2.0Ø	100m	25	100	1.0G§Δ	8.0		Δ	TO39	AØ
10	40319	28m	1.0	§J	700m	200m		2.5	40	250n	4.0Ø	50m	35	200	100M§	9.3		PE	TO5	AØ
11	40362	28m	5.0 Ø	§J	700m	200m		4.0	70 §	10mΔ	4.0Ø	50	35	200	100M§			PE	TO5	AØ
12	40634	28m	1.0	§A	700m	200m		7.0		10u*	4.0Ø	150m	50	250		2.7		PE	TO5	AØ
13	MM3726†	28m	1.0	§J	1.5			5.0	50	100nØ	2.0Ø	500m	30	120	200M§Δ	1.2		EA	TO5	AØ
14	2N3719†	34m	6.0 Ø	§J	3.0	500m	40	4.0	40	10u	1.5Ø	1.0	25	180 #	60M§Δ		100nØ		TO5	AØ
15	2N3720†	34m	6.0 Ø	§J	3.0	500m	60	4.0	60	10u	1.5Ø	1.0	25	180 #	60M§Δ		100nØ		TO5	AØ
16♦	2N3867†	34m	1.0	§J	3.0		40	4.0	40	150u	3.0Ø	2.5	25		60M§Δ	1.0	65n☑		TO5	AØ
17♦	2N3868†	34m	1.0	§J	3.0		60	4.0	60	150u	3.0Ø	2.5	20		60M§Δ	1.0	65n☑		TO5	AØ
18	40394	40m	7.0	§J	1.0	500m	60	7.0	40	250n	10Ø	1.0m	15		60M§Δ	9.3		DPEΔ	MD28a	
19	SE8542	40m	1.0	§J	1.0		30	5.0	30	50n	1.0Ø	150m	40 #	540 #	500M§			DPL	TO39	A
20▼	MPSU55	45m	1.0	†J	1.0		60	4.0	60	100nØ	5.0Ø	50m	100	180	125M§	2.4		AN	X81	AØ
21▼	MPSU56	45m	1.0	†J	1.0		80	4.0	80	100nØ	5.0Ø	50m	100	180	125M§	2.4		AN	X81	AØ
22	2N2881	50m	8.5 Ø	§J	2.0	1.0	60	10	60		4.0Ø	500m	20	60					TO5	AØ
23	2N2882	50m	8.5 Ø	§J	2.0	1.0	100	10	100		4.0Ø	500m	20	60					TO5	AØ
24	2N3202	50m	8.7 Ø	§C	3.0	1.5	40	10	40	75u#	2.0Ø	1.0	20	60	1.0M§Δ	300m			TO5	AØ
25	2N3203	50m	8.7 Ø	§C	3.0	1.5	60	10	60	75u#	2.0Ø	1.0	20	60	1.0M§Δ	300m			TO5	AØ
26	2N3204	50m	8.7 Ø	§C	3.0	1.5	80	10	80	75u#	2.0Ø	1.0	20	60	1.0M§Δ	300m			TO5	AØ
27	2N3208	50m	8.7 Ø	§C	2.0	1.0	40	10	40	75u#	2.0Ø	500m	20	60	1.0M§Δ	300m			TO5	AØ
28	2N3795†	50m	5.0 Ø	§J	1.0	500m	120	10	120	1.0m#	2.0Ø	10m	12	36	500k§Δ	20	5.0u		TO5	Ø
29	SDT3321	50m	1.0		5.0	2.0	40	6.0	40	.01m	5.0Ø	2.0	40	120	40M§Δ	.50	.50u	PEΔ	TO5	
30	SDT3322	50m	1.0		5.0	2.0	60	6.0	60	.01m	5.0Ø	2.0	40	120	40M§Δ	.50	.50u	PEΔ	TO5	
31	SDT3323	50m	1.0		5.0	2.0	80	6.0	80	.01m	5.0Ø	2.0	40	120	40M§Δ	.50	.50u	PEΔ	TO5	
32	SDT3324	50m	1.0		5.0	2.0	100	6.0	100	.01m	5.0Ø	2.0	40	120	40M§Δ	.50	.50u	PEΔ	TO5	
33	SDT3325	50m	1.0		5.0	2.0	40	6.0	40	.01m	5.0Ø	2.0	20	60	40M§Δ	.50	.50u	PEΔ	TO5	
34	SDT3326	50m	1.0		5.0	2.0	60	6.0	60	.01m	5.0Ø	2.0	20	60	40M§Δ	.50	.50u	PEΔ	TO5	
35	SDT3327	50m	1.0		5.0	2.0	80	6.0	80	.01m	5.0Ø	2.0	20	60	40M†	.60	.50u	PEΔ	TO5	
36	SDT3328	50m	1.0		5.0	2.0	100	6.0	100	.01m	5.0Ø	2.0	20	60	40M†	.60	.50u	PEΔ	TO5	
37	SDT3329	50m	1.0		5.0	2.0	120	6.0	120	.01m	5.0Ø	2.0	20	60	40M†	.60	.50u	PEΔ	TO5	
38	STC5610	50m	8.8 Ø	§J	750m	500m		10	40		4.0Ø	150m	20	60	1.0M§Δ	200m		D	TO5	A
39	STC5611	50m	8.8 Ø	§J	750m	500m		10	60		4.0Ø	150m	20	60	1.0M§Δ	200m		D	TO5	A
40	STC5612	50m	8.8 Ø	§J	750m	500m		10	100		4.0Ø	150m	20	60	1.0M§Δ	200m		D	TO5	A
41	STC5624	50m	8.8 Ø§	J	1.0		120	10	120		3.0Ø	.01	12	36		20		DΔ	TO5	A
42	MPSU52	54m	1.0	†J	800m		60	5.0	40	100n#	10Ø	150m	50	300	150M§	2.6		AN†	X81	A
43	ST30100†	55m§	5.0 Ø	§A	1.0		175	5.0	175	100nØ	10Ø	50m	100	300	200M§Δ	15	100nØ	PEØ	TO5	AØ
44	JAN2N3867†	56m	1.0	§S	3.0		40	4.0	40	1.0u#	2.0Ø	1.5	40	200	60M§Δ	500m	100nØ☑		TO5	AØ
45	JAN2N3868†	56m	1.0	§S	3.0		60	4.0	60	1.0u#	2.0Ø	1.5	30	150	60M§Δ	500m	100nØ☑		TO5	AØ
46	2N5322†	56m	10 Ø	§J	2.0	1.0	100	7.0	75	100u#	4.0Ø	500m	30	130	50M§Δ	1.4	100nØ		TO5	AØ
47	2N5323†	56m	10 Ø	§J	2.0	1.0	75	5.0	50	100u#	4.0Ø	500m	40	250	50M§Δ	2.4	100nØ		TO5	AØ
48	2N5415	56m#	1.0 Ø	§S	1.0	500m	200	4.0	200 ☑	50uØ	10Ø	50m	30	150	15M§Δ				TO5	AØ
49	2N5416	56m#	1.0 Ø	§S	1.0	500m	350	6.0	300 ☑	50uØ	10Ø	50m	30	120	15M§Δ				TO5	AØ
50	40595	56m	1.2	§A	2.0	1.0		4.0		10u*	4.0Ø	300m	70	350		2.7		PE	TO5	AØ
51	TRSP15X	56m	10 Ø	§A	1.0	500m	175	12	150	100u	10Ø	30m	900	40k	25M§Δ				TO5	
52	TRSP20X	56m	10 Ø	§A	1.0	500m	200	12	200	100u	10Ø	30m	900	40k	25M§Δ				TO5	
53	TRSP25X	56m	10 Ø	§A	1.0	500m	250	12	250	100u	10Ø	30m	900	40k	25M§Δ				TO5	
54	TRSP30X	56m	10 Ø	§A	1.0	500m	300	12	300	100u	10Ø	30m	900	40k	25M§Δ				TO5	
55	TRSP3743	56m	2.0	§	1.0		300	5.0	300	300n	10	30m	25	250	30M				MD14	
56	TRSP4000	56m	1.0	§	1.0		100	4.0	100	1.0u	10	10m	20	250	20M				TO5	
57	TRSP4001	56m	1.0	§	1.0		150	4.0	150	1.0u	10	10m	20	250	20M				TO5	
58	TRSP4002	56m	1.0	§	1.0	500m	200	4.0	200	3.0u	10	10m	20	250	20M				TO5	
59	TRSP4003	56m	1.0	§	1.0	500m	250	4.0	250	3.0u	10	10m	20	250	20M				TO5	
60	TRSP4930	56m	2.0	§	1.0		200	4.0	200	1.0u	10	10m	20	200	20M				MD14	
61	TRSP4931	56m	2.0	§	1.0		250	4.0	200	1.0u	10	10m	20	200	20M				MD14	
62	TRSP5281	56m	2.0	§	1.0		175	6.0	150	1.0u	10	10m	30	200	20M				MD14	
63	TRSP5282	56m	2.0	§	1.0		325	6.0	300	1.0u	10	10m	30	200	20M				MD14	
64	TRSP5415	56m	2.0	§	1.0	500m		4.0	200	50uΔ	10	50m	30	150	20M				MD14	
65	TRSP5416	56m	2.0	§	1.0	500m	350	6.0	300	50uΔ	10	50m	30	120	20M				MD14	
66▼	MJ8100†	57m	10 Ø	§J	5.0	1.0	60	5.0	60	10u	2.0Ø	2.0	25	180 #	30M§Δ		100n☑		TO59	A
67▼	MJ8101†	57m	10 Ø	§J	5.0	1.0	80	5.0	80	10u	2.0Ø	2.0	25	180 #	30M§Δ		100n☑		TO39	A
68	2N3660	66m	5.0 Ø	§S	1.5		40	5.0	30	100nØ	10Ø	500m	25	100	25M§Δ	2.4			TO5	AØ
69	2N3661	66m	5.0 Ø	§S	1.5		60	5.0	50	100nØ	10Ø	500m	25	100	25M§Δ	2.4			TO5	AØ
70#	2SA547	66m	10 Ø	§J	1.0		70	5.0	60	3.0uØ	3.0Ø	1.0	25		80M§			PE	TO37	AØ
71#	2SA547A	66m	10 Ø	§J	1.0		90	5.0	80	3.0uØ	3.0Ø	1.0	25		80M§			PE	TO37	AØ
72	TRSP15X5	66m	2.0	§J	1.0	500m	175	12	150	100n	10Ø	30m	900	40k	25M§Δ				MD14	
73	TRSP20X5	66m	2.0	§J	1.0	500m	200	12	200	100n	10Ø	30m	900	40k	25M§Δ				MD14	
74	TRSP25X5	66m	2.0	§J	1.0	500m	250	12	250	100n	10Ø	30m	900	40k	25M§Δ				MD14	
75	TRSP30X5	66m	2.0	§J	1.0	500m	300	12	300	100n	10Ø	30m	900	40k	25M§Δ				MD14	
76	2N1084	67m		§J	2.0	.20	60	5.0	50	10m	10	.50	20	60	25k†	3.0			TO5	AØ
77#	2SA606	72mØ	9.0 Ø	§J	700m		100	5.0	80	3.0uØ	5.0Ø	200m	30 #	100 #				PE	TO5	
78	MPSU51	72m	1.0	†J	1.5				30	100u	1.0Ø	150m	70		50M§Δ	1.0		AN†	X81	A
79	ST75004	75m	7.5 Ø	§J	2.0		100	8.0	100	10u	10	1.0	20	120	20M	380m	1.0u	PE	TO5	
80	ST75005	75m	7.5 Ø	§J	2.0		80	8.0	80	10u	10	1.0	20	120	20M	380m	1.0u	PE	TO5	
81	ST75006	75m	7.5 Ø	§J	2.0		120	8.0	120	10u	10	1.0	20	120	20M	380m	1.0u	PE	TO5	
82#	BD127	111m	14	§J	150m	50m	350	7.0	300	120uØ	20Ø	50m	50		10M§Δ		600nØ	ME	MD17	Ø
83	2N4387	114m	20 Ø	§J	2.0	300m	40	5.0	40	10u#♦	10Ø	500m	25	100	25M§Δ	3.0			TO66	CØ
84	2N4388	114m	20 Ø	§J	2.0	300m	60	5.0	60	10u#♦	10Ø	500m	25	100	25M§Δ	3.0			TO66	CØ
85	2N5161	114m	20 Ø	§S	1.5		60	4.0	40	100uØ	5.0Ø	250m	10						TO60	A☑
86	2N5597	114m	20	§J	2.0	1.0	80	5.5	60	1.0m#	5.0Ø	1.0	70	200 #	60M§Δ				TO66	CØ
87	2N5599	114m	20	§J	2.0	1.0	100	5.5	80	1.0m#	5.0Ø	1.0	30	90 #	50M§Δ				TO66	CØ
88	2N5601	114m	20	§J	2.0	1.0	100	5.5	80	1.0m#	5.0Ø	1.0	70	200 #	60M§Δ				TO66	CØ
89	2N5603	114m	20	§J	2.0	1.0	120	5.5	100	1.0m#	5.0Ø	1.0	30	90 #	50M§Δ				TO66	CØ
90▼#	2SA613	119m	15 Ø	§J	2.0 #	500m	60	7.0	40	1.0mØ	5.0Ø	500m	30	200 #				PE	TO66	CØ
91▼#	2SA614	119m	15 Ø	§J	2.0 #	500m	80	7.0	60	1.0mØ	5.0Ø	500m	30	200 #				PE	TO66	CØ
92	2N5100	133m	10 Ø	§A	1.0	500m	450	6.0	400	5.0nØ	15Ø	100m	20	200	20M§Δ	120			MD14	AØ
93	TRSP2006	133m	20 Ø	§	1.0	500m	200	6.0	200 §	100u	10Ø	50m	30	300	25M				TO66	
94	TRSP3006	133m	20 Ø	§	1.0	500m	300	6.0	300 §	100u	10Ø	50m	30	300	25M				TO66	
95	TRSP4006	133m	20 Ø	§	1.0	500m	400	6.0	400 §	100u	10Ø	50m	30	300	25M				TO66	
96	TRSP4016S	133m	20 Ø	§	1.0	500m	450	6.0	400	100u	10Ø	50m	30	300	2.5M				TO66	
97	TRSP4296	133m	20 Ø	§J	1.0	500m	350	4.0	250	100u	10Ø	50m	50	150	20M§Δ				TO66	
98	TRSP4297	133m	20 Ø	§J	1.0	500m	350	4.0	250	100u	10Ø	50m	75	300	20M§Δ				TO66	
99	TRSP4298	133m	20 Ø	§J	1.0	500m	500	4.0	350	100u	10Ø	50m	75	150	20M§Δ				TO66	
100	TRSP4299	133m	20 Ø	§J	1.0	500m	500	4.0	350	100u	10Ø	50m	75	150	20M§Δ				TO66	
101	TRSP4506	133m	20 Ø	§	1.0	500m	450	6.0	450 §	100u	10Ø	50m	30	300	25M				TO66	
102	TRSP5006	133m	20 Ø	§	1.0	500m	500	6.0	500 §	100u	10Ø	20m	30	300	25M				TO66	
103	TRSP6006	133m	20 Ø	§	1.0	500m	600	6.0	600 §	100u	10Ø	20m	30	300	25M				TO66	
104	TRSP7006	133m	20 Ø	§	1.0	500m	700	6.0	700 §	100u	10Ø	20m	30	300	25M				TO66	
105	TRSP8006	133m	20 Ø	§	1.0	500m	800	6.0	800 §	100u	10Ø	20m	30	300	25M				TO66	
106	2N2875	138m	20 Ø	§C	2.0	200m	60	5.0	50	1.0uØ	6.0Ø	1.5	15	60 #	25MΔ	3.0		PL	MT21	
107	2N4898	142m	25 Ø	§J	1.0	1.0	40	5.0	40	100u	1.0Ø	500m	20	100 #	3.0MΔ				TO66	CØ
108	2N4899	142m	25 Ø	§J	1.0	1.0	60	5.0	60	100u	1.0Ø	500m	20	100 #	3.0MΔ				TO66	CØ
109	2N4900	142m	25 Ø	§J	1.0	1.0	80	5.0	80	100u	1.0Ø	500m	20	100 #	3.0MΔ				TO66	CØ
110	MJ2253	142m	25 Ø	§J	3.0	500m	70	7.0	60	1.0m	4.0Ø	250	20	100 #	3.0M§	800m			TO66	CØ

10. SILICON PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AE XM P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CONFIG
1	MJ2254	142m	25 Ø	§J	3.0	500m	90	7.0	80	1.0m	4.0Ø	250	20	100 #	3.0M§	800m			TO66	CØ
2	MJ3701	142m	25 Ø	§J	3.0	500m	50	5.0	40	1.0m	4.0Ø	250	20	100 #	3.0M§	800m			TO66	CØ
3	STC5202	142m	25 Ø	§C	3.0		40	10	40		3.0Ø	1.0	20	60		300m		DΔ	TO8	
4	STC5203	142m	25 Ø	§C	3.0		60	10	60		3.0Ø	1.0	20	60		300m		DΔ	TO8	
5	STC5204	142m	25 Ø	§C	3.0		80	10	80		3.0Ø	1.0	20	60		300m		DΔ	TO8	
6	STC5205	142m	25 Ø	§C	2.0		40	10	40		3.0Ø	500m	20	60		800m		DΔ	TO8	
7	STC5206	142m	25 Ø	§C	2.0		60	10	60		3.0Ø	500m	20	60		800m		DΔ	TO8	
8	STC5207	142m	25 Ø	§C	2.0		80	10	80		3.0Ø	500m	20	60		800m		DΔ	TO8	
9♦	2N3740	143m	25 Ø	§J	1.0	2.0	60 †	7.0†	60	100n	1.0Ø	250m	30	100	4.0M§Δ	600m			TO66	CØ
10▼	2N3740A	143m	25 Ø	§J	1.0	2.0	60 †	7.0†	60	100n	1.0Ø	250m	30	100	4.0M§Δ	600m			TO66	CØ
11♦	2N3741	143m	25 Ø	§J	1.0	2.0	80 †	7.0†	80	100n	1.0Ø	250m	30	100	4.0M§Δ	600m			TO66	CØ
12▼	2N3741A	143m	25 Ø	§J	1.0	2.0	80 †	7.0†	80	100n	1.0Ø	250m	30	100	4.0M§Δ	600m			TO66	CØ
13	2N5605	143m	25	§J	5.0	2.0	80	5.5	60	1.0m#	5.0Ø	2.5	70	200 #	70M§Δ				TO66	CØ
14	2N5607	143m	25	§J	5.0	2.0	100	5.5	80	1.0m#	5.0Ø	2.5	30	90 #	60M§Δ				TO66	CØ
15	2N5609	143m	25	§J	5.0	2.0	100	5.5	80	1.0m#	5.0Ø	2.5	70	200 #	70M§Δ				TO66	CØ
16	2N5611	143m	25	§J	5.0	2.0	120	5.5	100	1.0m#	5.0Ø	2.5	30	90 #	60M§Δ				TO66	CØ
17	2N5333	150m	1.0	§J	2.0	1.0	100	6.0	80	10u§	4.0Ø	1.0	30	120 #	30M§Δ				TO5	AØ
18#	2SC831	153m	23 Ø	§J	2.0		50	4.0	25		10Ø	1.0	15 #	200 #	300M§			PE	TO60	A
19	2N3021†	165m	25 Ø	§C	3.0	500m	30	4.0	30	200u#	2.0Ø	1.0	20	60	60M§Δ	500m	100nØ		TO3	CØ
20	2N3022†	165m	25 Ø	§C	3.0	500m	45	4.0	45	200u#	2.0Ø	1.0	20	60	60M§Δ	500m	100nØ		TO3	CØ
21	2N3023†	165m	25 Ø	§C	3.0	500m	60	4.0	60	200u#	2.0Ø	1.0	20	60	60M§Δ	500m	100nØ		TO3	CØ
22	2N3024†	165m	25 Ø	§C	3.0	500m	30	4.0	30	200u#	2.0Ø	1.0	50	180	60M§Δ	330m	100nØ		TO3	CØ
23	2N3025†	165m	25 Ø	§C	3.0	500m	45	4.0	45	200u#	2.0Ø	1.0	50	180	60M§Δ	330m	100nØ		TO3	CØ
24	2N3026†	165m	25 Ø	§C	3.0	500m	60	4.0	60	200u#	2.0Ø	1.0	50	180	60M§Δ	330m	100nØ		TO3	CØ
25#	BD132	167mØ	11	♦J	2.0	.50	45	4.0	45		5.0Ø	.50	35	75	60M§Δ			PE	X58	
26	2N4999	200m#	30 Ø	§J	2.0	1.0	100	5.5	80	1.0m#	5.0Ø	1.0	30	90 #	50M§Δ				TO59	A
27	2N5001	200m#	30 Ø	§J	2.0	1.0	100	5.5	80	1.0m#	5.0Ø	1.0	70	200 #	60M§Δ				TO59	A
28#	2SB434	200m	25 Ø	§J	3.0	3.0 Ø	50	5.0	50	200uØ	5.0Ø	500m	40	240	3.0M§			D		
29#	2SB435	200m	25 Ø	§J	3.0	3.0 Ø	35	5.0	35	200uØ	5.0Ø	500m	40	240	3.0M§			D		
30♦	MJE370	200m	25 Ø	§J	3.0	2.0	30	4.0	30	100u	1.0Ø	1.0	25 #						X58	B
31▼#	MP8511	222m	3.0	§J	1.2		60	7.0	60	1.0m	5.0Ø	200m	30	60	100M§			PE	X95	
32▼#	MP8512	222m	3.0	§J	1.2		60	7.0	60	1.0m	5.0Ø	200m	50	120	100M§			PE	X95	
33▼#	MP8513	222m	3.0	§J	1.2		60	7.0	60	1.0m	5.0Ø	200m	100		100M§			PE	X95	
34▼#	MP8521	222m	3.0	§J	1.2		35	7.0	35	1.0m	5.0Ø	200m	20	60	100M§			PE	X95	
35▼#	MP8522	222m	3.0	§J	1.2		35	7.0	35	1.0m	5.0Ø	200m	50	120	100M§			PE	X95	
36▼#	MP8523	222m	3.0	§J	1.2		35	7.0	35	1.0m	5.0Ø	200m	100		100M§			PE	X95	
37▼#	MP8611	222m	5.0	§J	1.5		60	7.0	60	1.0m	5.0Ø	500m	30	60	100M§			PE	TO66	CØ
38▼#	MP8612	222m	5.0	§J	1.5		60	7.0	60	1.0m	5.0Ø	500m	50	120	100M§			PE	TO66	CØ
39▼#	MP8613	222m	5.0	§J	1.5		60	7.0	60	1.0m	5.0Ø	500m	100		100M§			PE	TO66	CØ
40▼#	MP8621	222m	5.0	§J	1.5		35	7.0	35	1.0m	5.0Ø	500m	20	60	100M§			PE	TO66	CØ
41▼#	MP8622	222m	5.0	§J	1.5		35	7.0	35	1.0m	5.0Ø	500m	50	120	100M§			PE	TO66	CØ
42▼#	MP8623	222m	5.0	§J	1.5		35	7.0	35	1.0m	5.0Ø	500m	100		100M§			PE	TO66	CØ
43	2N3199	227m	40 Ø	§C	3.0	1.5	40	10	40	75u#	2.0Ø	1.0	20	60	1.0M§Δ	300m			MT42c	AØ
44	2N3200	227m	40 Ø	§C	3.0	1.5	60	10	60	75u#	2.0Ø	1.0	20	60	1.0M§Δ	300m			MT42c	AØ
45	2N3201	227m	40 Ø	§C	3.0	1.5	80	10	80	75u#	2.0Ø	1.0	20	60	1.0M§Δ	300m			MT42c	AØ
46	2N3205	227m	40 Ø	§C	2.0	1.0	40	10	40	75u#	2.0Ø	500m	20	60	1.0M§Δ	800m			TO59	AØ
47	2N3206	227m	40 Ø	§C	2.0	1.0	60	10	60	75u#	2.0Ø	500m	20	60	1.0M§Δ	800m			TO59	AØ
48	2N3207	227m	40 Ø	§C	2.0	1.0	100	10	100	75u#	2.0Ø	500m	20	60	1.0M§Δ	800m			TO59	AØ
49	2N5344†	228m	40 Ø	§J	1.0	500m	250	5.0	250	100u	5.0Ø	500m	25	100 #	60M§Δ	3.0	100n		TO66	CØ
50	2N5345†	228m	40 Ø	§J	1.0	500m	300	5.0	300	100u	5.0Ø	500m	25	100 #	60M§Δ	3.0	100n		TO66	CØ
51	2N5112	229m	34 Ø	§J	1.0	500m	40	10	40	75u#	4.0Ø	500m	15	60	100M§	1.8			TO59	AØ
52	2N5113	229m	34 Ø	§J	1.0	500m	80	10	80	75u#	4.0Ø	500m	15	60	100M§	1.8			TO59	AØ
53	2N4918	238m	30 Ø	§J	1.0	1.0	40	5.0	40	100u	1.0Ø	500m	20	100 #	3.0M§Δ				X58	BØ
54	2N4919	238m	30 Ø	§J	1.0	1.0	60	5.0	60	100u	1.0Ø	500m	20	100 #	3.0M§Δ				X58	BØ
55	2N4920	238m	30 Ø	§J	1.0	1.0	80	5.0	80	100u	1.0Ø	500m	20	100 #	3.0M§Δ				X58	BØ
56	TIP30	238m	2.0	§J	1.0	400m	40	5.0	40	300uΔ	4.0	200m	40	200 #	3.0k§Δ		250nØ	D	X75b	BØ
57	TIP30A	238m	2.0	§J	1.0	400m	60	5.0	60	300uΔ	4.0	200m	40	200 #	3.0k§Δ		250nØ	D	X75b	BØ
58	2N5357	240m	30 Ø	§J	3.0	1.0	300	5.0	300	10u#	5.0Ø	500m	25	100	50M§Δ	3.0	1.0u		TO37	AØ
59	2N5425	250m	32 Ø	§S	5.0	100m	60	7.0	60	1.0uØ	2.5Ø	5.0	500 #		50M§Δ		300n		R117a	A
60	2N5426	250m	32 Ø	§S	5.0	100m	60	7.0	60	1.0uØ	2.2Ø	5.0	1.0k#		50M§Δ		300n		R117a	A
61	2N5162	285m	50 Ø	§S	5.0		60	4.0	40	200uØ	5.0Ø	2.0	10						TO60	AØ
62	2N5003	303m#	50 Ø	§J	5.0	2.0	100	5.5	80	1.0m#	5.0Ø	2.5	30	90 #	60M§Δ				TO59	A
63	2N5005	303m#	50 Ø	§J	5.0	2.0	100	5.5	80	1.0m#	5.0Ø	2.5	70	200 #	70M§Δ				TO59	A
64	2N5384	303m#	2.0	§J	5.0	1.0	100	6.0	80	10u§♦	4.0Ø	2.0	20	80 #	30M§Δ				TO111	G
65	2N5385	303m#	2.0	§J	5.0	1.0	100	6.0	80	10u§♦	4.0Ø	2.0	20	80 #	30M§Δ				TO111	AØ
66	2N5408†	303m$	30 Ø	§J	5.0	2.0	80	6.0	80	10m#	5.0Ø	2.0	20	60	40M§Δ	1.0	500n		TO111	A
67	2N5409†	303m$	30 Ø	§J	5.0	2.0	100	6.0	100	10m#	5.0Ø	2.0	20	60	40M§Δ	1.0	500n		TO111	A
68	2N5410†	303m$	30 Ø	§J	5.0	2.0	80	6.0	80	10m#	5.0Ø	2.0	40	120	40M§Δ	800m	500n		TO111	A
69	2N5411†	303m$	30 Ø	§J	5.0	2.0	100	6.0	100	10M#	5.0Ø	2.0	40	120	40M§Δ	800m	500n		TO111	A
70	SDT3301†	303m	2.0	§J	5.0	2.0	40	6.0	40	10m#	5.0Ø	2.0	40	120 #	40M§Δ		500m	PE	TO111	
71	SDT3302†	303m	2.0	§J	5.0	2.0	60	6.0	60	10m#	5.0Ø	2.0	40	120 #	40M§Δ		500n	PE	TO111	
72	SDT3303†	303m	2.0	§J	5.0	2.0	80	6.0	80	10m#	5.0Ø	2.0	40	120 #	40M§Δ		500n	PE	TO111	
73	SDT3304†	303m	2.0	§J	5.0	2.0	100	6.0	100	10m#	5.0Ø	2.0	40	120 #	40M§Δ		500n	PE	TO111	
74	SDT3305†	303m	2.0	§J	5.0	2.0	40	6.0	40	10u#	5.0Ø	2.0	20	60 #	40M§Δ		500n	PE	TO111	
75	SDT3306†	303m	2.0	§J	5.0	2.0	60	6.0	60	10u#	5.0Ø	2.0	20	60 #	40M§Δ		500n	PE	TO111	
76	SDT3307†	303m	2.0	§J	5.0	2.0	80	6.0	80	10u#	5.0Ø	2.0	20	60 #	40M§Δ		500n	PE	TO111	
77	SDT3308†	303m	2.0	§J	5.0	2.0	100	6.0	100	10u#	5.0Ø	2.0	20	60 #	40M§Δ		500n	PE	TO111	
78	SDT3309†	303m	2.0	§J	5.0	2.0	120	6.0	120	10u#	5.0Ø	2.0	20	60 #	40M§Δ		500n	PE	TO111	
79	ST72011	303m$	30 Ø		5.0		40	7.0	40	1.0uØ	2.0Ø	1.5	30	200	30M§Δ			PE	TO111	
80	ST72012	303m$	30 Ø		5.0		60	7.0	60	1.0uØ	2.0Ø	1.5	30	200	30M§Δ			PE	TO111	
81	ST72013	303m$	30 Ø		5.0		80	7.0	80	1.0uØ	2.0Ø	1.5	30	200	30M§Δ			PE	TO111	
82	ST72014	303m$	30 Ø		5.0		100	7.0	100	2.0uØ	2.0Ø	1.5	30	200	30M§Δ			PE	TO111	
83	ST72036	303m	30 Ø	§J	5.0		80		80	20u	10	2.0	30	120	20M	400m	1.5u	PE	TO59	
84	ST72037	303m	30 Ø	§J	5.0		100		100	20u	10	2.0	30	120	20M	400m	1.5u	PE	TO59	
85	ST72038	303m	30 Ø	§J	5.0		120		120	20u	10	2.0	30	120	20M	400m	1.5u	PE	TO59	
86	2N5193	320m	40 Ø	§J	4.0	1.0	40	5.0	40	100u	2.0Ø	1.5	25	100	2.0M§Δ	350m			X58	AØ
87	2N5194	320m	40 Ø	§J	4.0	1.0	60	5.0	60	100u	2.0Ø	1.5	25	100	2.0M§Δ	350m			X58	AØ
88	2N5195	320m	40 Ø	§J	4.0	1.0	80	5.0	80	100u	2.0Ø	1.5	20	80	2.0M§Δ	350m			X58	AØ
89♦	MJE371	320m	40 Ø	§J	3.0	2.0	40	4.0	40	100u	1.0Ø	1.0	40 #						X58	B
90	TIP32†	320m	2.0	§J	3.0	1.0	40	5.0	40	500uΔ	4.0	1.0	20	100 #	3.0k§Δ		170nØ	D	X75b	BØ
91	TIP32A†	320m	2.0	§J	3.0	1.0	60	5.0	60	500uΔ	4.0	1.0	20	100 #	3.0k§Δ		170nØ	D	X75b	BØ
92▼	2N5613	330m#	50 Ø	§J	5.0	2.0	80 †	5.5†	60	1.0m#♦	5.0Ø	2.5	70	200 #	70M§Δ				TO3	CØ
93▼	2N5615	330m#	50 Ø	§J	5.0	2.0	100 †	5.5†	80	1.0m#♦	5.0Ø	2.5	30	90 #	60M§Δ				TO3	CØ
94▼	2N5617	330m#	50 Ø	§J	5.0	2.0	100 †	5.5†	80	1.0m#♦	5.0Ø	2.5	70	200 #	70M§Δ				TO3	CØ
95▼	2N5619	330m#	50 Ø	§J	5.0	2.0	120 †	5.5†	100	1.0m#♦	5.0Ø	2.5	30	90 #	60M§Δ				TO3	CØ
96	2N5286	333m#	50 Ø	§J	5.0	2.0	100	5.5	100	1.0m#	5.0Ø	2.5	30	90 #	60M§Δ				TO59	A
97	2N5287	333m#	50 Ø	§J	5.0	2.0	100	5.5	100	1.0m#	5.0Ø	2.5	70	200 #	70M§Δ				TO59	A
98▼	MJ500†	343m	60 Ø	§J	7.0	1.0	60	5.0	60	10u	2.0Ø	2.0	25	180 #	30M§Δ		100nØ		TO59	AØ
99▼	MJ501†	343m	60 Ø	§J	7.0	1.0	80	5.0	80	10u	2.0Ø	2.0	25	180 #	30M§Δ		100nØ		TO59	AØ
100▼	MJ6700†	343m	60 Ø	§J	7.0	1.0	60	5.0	60	10u	2.0Ø	2.0	25	180 #	30M§Δ		100nØ		TO59	A
101▼	MJ6701†	343m	60 Ø	§J	7.0	1.0	80	5.0	80	10u	2.0Ø	2.0	25	180 #	30M§Δ		100nØ		TO59	A
102#	2SC642	400m	50 Ø	§J	1.0		1.1k	5.0	700 §	10uØ	15Ø	150m	30	160	1.5M†			M	TO3	CØ
103#	2SC643	400m	50 Ø	§J	2.5		1.1k	5.0	1.1kØ	10uØ	15Ø	2.0	7.0	50	4.0M†			M	TO3	CØ
104	ST76018	400m	40 Ø	§J	10		80		80	30u	10	2.0	30	120	20M	160m	1.5u	PE	TO59	
105	ST76019	400m	40 Ø	§J	10		100		100	30u	10	2.0	30	120	20M	160m	1.5u	PE	TO59	
106	ST76020	400m	40 Ø	§J	10		120		120	30u	10	2.0	30	120	20M	160m	1.5u	PE	TO59	
107	STC5111/I	400mØ	85 Ø	§C	3.0		80	10	80		3.0Ø	1.0	20	60		300m		DΔ	MS8	
108	2N3171	434m	75 Ø	§C	3.0	1.0	40	10	40	10m#	3.0Ø	1.0	12	36	1.0M§Δ	750m			TO3	CØ
109	2N3172	434m	75 Ø	§C	3.0	1.0	60	10	60	10m#	3.0Ø	1.0	12	36	1.0M§Δ	750m			TO3	CØ
110	2N3173	434m	75 Ø	§C	3.0	1.0	80	10	80	10m#	3.0Ø	1.0	12	36	1.0M§Δ	750m			TO3	CØ

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

10. SILICON PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AEXMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CONFIG.
1	2N3174	434m	75 Ø	§C	3.0	1.0	100	10	100	10m#	1.0	1.0	12	36	1.0M§Δ	750m			TO3	CØ
2	2N3183	434m	75 Ø	§C	5.0	2.0	40	10	40	10m#	3.0Ø	2.0	10	30	1.0M§Δ	500m			TO3	CØ
3	2N3184	434m	75 Ø	§C	5.0	2.0	60	10	60	10m#	3.0Ø	2.0	10	30	1.0M§Δ	500m			TO3	CØ
4	2N3185	434m	75 Ø	§C	5.0	2.0	80	10	80	10m#	3.0Ø	2.0	10	30	1.0M§Δ	500m			TO3	CØ
5	2N3186	434m	75 Ø	§C	5.0	2.0	100	10	100	10m#	3.0Ø	2.0	10	30	1.0M§Δ	500m			TO3	CØ
6	2N3195	434m	75 Ø	§C	5.0	2.0	40	10	40	10m#	3.0Ø	3.0	10	30	1.0M§Δ	300m			TO3	CØ
7	2N3196	434m	75 Ø	§C	5.0	2.0	60	10	60	10m#	3.0Ø	3.0	10	30	1.0M§Δ	300m			TO3	CØ
8	2N3197	434m	75 Ø	§C	5.0	2.0	80	10	80	10m#	3.0Ø	3.0	10	30	1.0M§Δ	300m			TO3	CØ
9	2N3198	434m	75 Ø	§C	5.0	2.0	100	10	100	10m#	3.0Ø	3.0	10	30	1.0M§Δ	300m			TO3	CØ
10	2N3163	454m	85 Ø	§C	3.0	1.0	40	10	40	10m#	3.0Ø	1.0	12	36	1.0M§Δ	750m			TO3	CØ
11	2N3164	454m	85 Ø	§C	3.0	1.0	60	10	60	10m#	3.0Ø	1.0	12	36	1.0M§Δ	750m			MT10	AØ
12	2N3165	454m	85 Ø	§C	3.0	1.0	80	10	80	10m#	3.0Ø	1.0	12	36	1.0M§Δ	750m			MT10	AØ
13	2N3166	454m	85 Ø	§C	3.0	1.0	100	10	100	10m#	3.0Ø	1.0	12	36	1.0M§Δ	750m			MT10	AØ
14	2N3167	454m	85 Ø	§C	3.0	1.0	40	10	40	10m#	3.0Ø	1.0	12	36	1.0M§Δ	750m			TO53	AØ
15	2N3168	454m	85 Ø	§C	3.0	1.0	60	10	60	10m#	3.0Ø	1.0	12	36	1.0M§Δ	750m			TO53	AØ
16	2N3169	454m	85 Ø	§C	3.0	1.0	80	10	80	10m#	3.0Ø	1.0	12	36	1.0M§Δ	750m			TO53	AØ
17	2N3170	454m	85 Ø	§C	3.0	1.0	100	10	100	10m#	3.0Ø	1.0	12	36	1.0M§Δ	750m			TO53	AØ
18	2N3175	454m	85 Ø	§C	5.0	2.0	40	10	40	10m#	3.0Ø	2.0	10	30	1.0M§Δ	500m			MT10	AØ
19	2N3176	454m	85 Ø	§C	5.0	2.0	60	10	60	10m#	3.0Ø	2.0	10	30	1.0M§Δ	500m			MT10	AØ
20	2N3177	454m	85 Ø	§C	5.0	2.0	80	10	80	10m#	3.0Ø	2.0	10	30	1.0M§Δ	500m			MT10	AØ
21	2N3178	454m	85 Ø	§C	5.0	2.0	100	10	100	10m#	3.0Ø	2.0	10	30	1.0M§Δ	500m			MT10	AØ
22	2N3179	454m	85 Ø	§C	5.0	2.0	40	10	40	10m#	3.0Ø	2.0	10	30	1.0M§Δ	500m			TO53	AØ
23	2N3180	454m	85 Ø	§C	5.0	2.0	60	10	60	10m#	3.0Ø	2.0	10	30	1.0M§Δ	500m			TO53	AØ
24	2N3181	454m	85 Ø	§C	5.0	2.0	80	10	80	10m#	3.0Ø	2.0	10	30	1.0M§Δ	500m			TO53	AØ
25	2N3182	454m	85 Ø	§C	5.0	2.0	100	10	100	10m#	3.0Ø	2.0	10	30	1.0M§Δ	500m			TO53	AØ
26	2N3187	454m	85 Ø	§C	5.0	2.0	40	10	40	10m#	3.0Ø	2.0	10	30	1.0M§Δ	300m			MT10	AØ
27	2N3188	454m	85 Ø	§C	5.0	2.0	60	10	60	10m#	3.0Ø	2.0	10	30	1.0M§Δ	300m			MT10	AØ
28	2N3189	454m	85 Ø	§C	5.0	2.0	80	10	80	10m#	3.0Ø	2.0	10	30	1.0M§Δ	300m			MT10	AØ
29	2N3190	454m	85 Ø	§C	5.0	2.0	100	10	100	10m#	3.0Ø	2.0	10	30	1.0M§Δ	300m			MT10	AØ
30	2N3191	454m	85 Ø	§C	5.0	2.0	40	10	40	10m#	3.0Ø	2.0	10	30	1.0M§Δ	300m			TO53	AØ
31	2N3192	454m	85 Ø	§C	5.0	2.0	60	10	60	10m#	3.0Ø	2.0	10	30	1.0M§Δ	300m			TO53	AØ
32	2N3193	454m	85 Ø	§C	5.0	2.0	80	10	80	10m#	3.0Ø	2.0	10	30	1.0M§Δ	300m			TO53	AØ
33	2N3194	454m	85 Ø	§C	5.0	2.0	100	10	100	10m#	3.0Ø	2.0	10	30	1.0M§Δ	300m			TO53	AØ
34	2N4901	500m	87 Ø	§J	5.0	1.0	40	5.0	40	100u#	2.0Ø	1.0	20	80 #	4.0M§Δ				TO3	CØ
35	2N4902	500m	87 Ø	§J	5.0	1.0	60	5.0	60	100u#	2.0Ø	1.0	20	80 #	4.0M§Δ				TO3	CØ
36	2N4903	500m	87 Ø	§J	5.0	1.0	80	5.0	80	100u#	2.0Ø	1.0	20	80 #	4.0M§Δ				TO3	CØ
37	2N4904	500m	87 Ø	§J	5.0	1.0	40	5.0	40	100u#	2.0Ø	2.5	25	100 #	4.0M§Δ				TO3	CØ
38	2N4905	500m	87 Ø	§J	5.0	1.0	60	5.0	60	100u#	2.0Ø	2.5	25	100 #	4.0M§Δ				TO3	CØ
39	2N4906	500m	87 Ø	§J	5.0	1.0	80	5.0	80	100u#	2.0Ø	2.5	25	100 #	4.0M§Δ				TO3	CØ
40	2N5312†	500m$	50 Ø	§J	10	2.5	80	6.0	80	10u#	5.0Ø	10	30	90 #	30M§Δ		500n		TO61	A
41	2N5314†	500m$	50 Ø	§J	10	2.5	100	6.0	100	10u#	5.0Ø	10	30	90 #	30M§Δ		500n		TO61	A
42	2N5316†	500m$	50 Ø	§J	10	2.0	80	6.0	80	10u#	5.0Ø	5.0	30	90 #	30M§Δ		200n		TO61	A
43	2N5318†	500m$	50 Ø	§J	10	2.0	100	6.0	100	10u#	5.0Ø	5.0	30	90 #	30M§Δ		200n		TO61	A
44	2N5386	500m	3.5	§J	12	4.0	100	6.0	80	10u§♦	4.0Ø	6.0	20	80 #	30M§Δ				TO61	AØ
45	MJ490	500m	87 Ø	§J			60	5.0	40			1.0	30	200	4.0M§Δ	400m			TO3	Ø
46	MJ491	500m	87 Ø	§J			60	5.0	40			1.0	30	200	4.0M§Δ	400m			TO3	Ø
47	SDT3101†	500m	3.0	§J	20	5.0	40	6.0	40	10m#	5.0Ø	10	30	90 #	30M§Δ		500n	PE	TO61	A
48	SDT3102†	500m	3.0 §	J	20	5.0	60	6.0	60	.01m#	5.0Ø	10	30	90 #	30M§Δ		.50u	PE	TO61	A
49	SDT3103†	500m	3.0	§J	20	5.0	80	6.0	80	10m#	5.0Ø	10	30	90 #	30M§Δ		500n	PE	TO61	A
50	SDT3104†	500m	3.0	§J	20	5.0	100	6.0	100	10m#	5.0Ø	10	30	90 #	30M§Δ		500n	PE	TO61	A
51	SDT3105†	500m	3.0	§J	10	4.0	40	6.0	40	10m#	5.0Ø	5.0	30	90 #	30M§Δ		200n	PE	TO61	A
52	SDT3106†	500m	3.0	§J	10	4.0	60	6.0	60	10m#	5.0Ø	5.0	30	90 #	30M§Δ		200n	PE	TO61	A
53	SDT3107†	500m	3.0	§J	10	4.0	80	6.0	80	10m#	5.0Ø	5.0	30	90 #	30M§Δ		200n	PE	TO61	A
54	SDT3108†	500m	3.0	§J	10	4.0	100	6.0	100	10m#	5.0Ø	5.0	30	90 #	30M§Δ		200n	PE	TO61	A
55	SDT3109†	500m	3.0	§J	10	4.0	120	6.0	120	10m#	5.0Ø	5.0	30	90 #	30M§Δ		200n	PE	TO61	A
56	ST72015	500m$	50 Ø		10		60	7.0	60	1.0uØ	2.0Ø	3.0	30	200	30M§Δ			PE	TO61	
57	ST72016	500m$	50 Ø		10		80	7.0	80	2.0uØ	2.0Ø	3.0	30	200	30M§Δ			PE	TO61	
58	ST72017	500m$	50 Ø		10		100	7.0	100	2.0uØ	2.0Ø	3.0	30	200	30M§Δ			PE	TO61	
59▼	MJE105	522m	65 Ø	§J	5.0	2.5	50	4.0	50	100u	2.0Ø	2.0	25	100					X58a	B
60	TIP34†	641m	3.5	§J	10	3.0	40	5.0	40	700uΔ	4.0	1.0	25	125 #	3.0k§Δ		350nØ	D	X86	BØ
61	TIP34A†	641m	3.5	§J	10	3.0	60	5.0	60	700uΔ	4.0	1.0	25	125 #	3.0k§Δ		350nØ	D	X86	BØ
62	2N5007	666m#	100 Ø	§J	10	3.0	100	5.5	80	1.0m#	5.0Ø	5.0	30	90 #	30M§Δ				MT16a	A
63	2N5009	666m#	100 Ø	§J	10	3.0	100	5.5	80	1.0m#	5.0Ø	5.0	70	200 #	40M§Δ				MT16a	A
64	2N5290	666m#	100 Ø	§J	10	3.0	100	5.5	100	1.0m#	5.0Ø	5.0	30	90 #	30M§Δ				MT16a	A
65	2N5291	666m#	100 Ø	§J	10	3.0	100	5.5	100	1.0m#	5.0Ø	5.0	70	200 #	40M§Δ				MT16a	A
66▼	2N5621	667m#	100 Ø	§J	10	3.0	80 †	5.5†	60	1.0m#♦	5.0Ø	5.0	70	200 #	40M§Δ				TO3	CØ
67▼	2N5623	667m#	100 Ø	§J	10	3.0	100 †	5.5†	80	1.0m#♦	5.0Ø	5.0	30	90 #	30M§Δ				TO3	CØ
68▼	2N5625	667m#	100 Ø	§J	10	3.0	100 †	5.5†	80	1.0m#♦	5.0Ø	5.0	70	200 #	40M§Δ				TO3	CØ
69▼	2N5627	667m#	100 Ø	§J	10	3.0	120 †	5.5†	100	1.0m#♦	5.0Ø	5.0	30	90 #	30M§Δ				TO3	CØ
70	MJ2901	709m	120 Ø	§J			50	7.0	40			8.0	15	60	4.0M§Δ	190m			TO3	Ø
71▼	MJE2901	719m	90 Ø	§J	10	5.0	60	4.0	60	100u	2.0Ø	3.0	25	100					X58a	B
72▼	MJE2955	719m	90 Ø	§J	10	6.0	70	5.0	60	1.0m	4.0Ø	4.0	20	70 #	2.0M§Δ			Δ	X58a	B
73	TIP36†	719m	3.5	§J	25	5.0	40	5.0	40	1.0m	4.0	5.0	20	100 #	3.0k§Δ		450nØ	D	X86	BØ
74	TIP36A†	719m	3.5	§J	25	5.0	60	5.0	60	1.0m	4.0	5.0	20	100 #	3.0k§Δ		450nØ	D	X86	BØ
75	2N4907	833m	150 Ø	§J	10	7.0	40	5.0	40	2.0m#	4.0Ø	4.0	20	80	4.0M§	200m			TO3	CØ
76	2N4908	833m	150 Ø	§J	10	7.0	60	5.0	60	2.0m#	4.0Ø	4.0	20	80	4.0M§	200m			TO3	CØ
77	2N4909	833m	150 Ø	§J	10	7.0	80	5.0	80	2.0m#	4.0Ø	4.0	20	80	4.0M§	200m			TO3	CØ
78	2N3789	854m	150 Ø	§J	10	4.0	60	7.0	60	5.0m#†	2.0Ø	1.0	25	90	30kΔ	250m			TO3	CØ
79	JAN2N3789†	854m	150 Ø	§A	10	4.0	60	7.0	60	1.0mØ	2.0Ø	3.0	20	80 #	4.0M§Δ		1.5uØ		TO3	CØ
80	2N3790	854m	150 Ø	§J	10	4.0	80	7.0	80	5.0m#†	2.0Ø	1.0	25	90	30kΔ	250m			TO3	CØ
81	JAN2N3790†	854m	150 Ø	§A	10	4.0	60	7.0	80	1.0mØ	2.0Ø	3.0	20	80 #	4.0M§Δ		1.5uØ		TO3	CØ
82	2N3791	854m	150 Ø	§J	10	4.0	80	7.0	60	5.0m#†	2.0Ø	1.0	25	180	30kΔ	200m			TO3	CØ
83	JAN2N3791†	854m	150 Ø	§A	10	4.0	60	7.0	60	1.0mØ	2.0Ø	3.0	50	150 #	4.0M§Δ		1.5nØ		TO3	CØ
84	2N3792	854m	150 Ø	§J	10	4.0	80	7.0	80	5.0m#†	2.0Ø	1.0	50	180	30kΔ	200m			TO3	CØ
85	JAN2N3792†	854m	150 Ø	§A	10	4.0	80	7.0	80	1.0mØ	2.0Ø	3.0	50	150 #	4.0M§Δ		1.5nØ		TO3	CØ
86	MJ450	854m	150 Ø	§J			40	5.0	40			10	20		2.0M§Δ	100m			MD6c	
87	MJ2267	866m	150 Ø	§J	5.0	3.0	40	5.0	40	1.0m#	2.0Ø	1.0	20		3.0M§Δ				TO3	CØ
88	MJ2268	866m	150 Ø	§J	5.0	3.0	55	5.0	55	1.0m§	2.0Ø	1.0	20		3.0M§Δ				TO3	CØ
89	ST10007	1.0	100 Ø	§J	30		80	10	80	100u	10	10	30	120	20M	80m	1.5n	PE	TO61	
90	ST10008	1.0	100 Ø	§J	30		100	10	100	100u	10	10	30	120	20M	80m	1.5n	PE	TO61	
91	ST10009	1.0	100 Ø	§J	30		120	10	120	100u	10	10	30	120	20M	80m	1.5n	PE	TO61	
92	ST72018	1.0 $	100 Ø		20		40	7.0	40	.01mØ	5.0Ø	10	20	200	10M§Δ			PE	TO63	
93	ST72019	1.0 $	100 Ø		20		60	7.0	60	.01mØ	5.0Ø	10	20	200	10M§Δ			PE	TO63	
94	ST72020	1.0 $	100 Ø		20		80	7.0	80	.01mØ	5.0Ø	10	20	200	10M§Δ			PE	TO63	
95	ST72021	1.0 $	100 Ø		20		100	7.0	100	.01mØ	5.0Ø	10	20	200	10M§Δ			PE	TO63	
96	2N4398†	1.1	200 Ø	§J	30	7.5	40	5.0	40	1.0m	4.0Ø	15	15	60 #	4.0M§Δ				MD6d	AØ
97	2N4399†	1.1	200 Ø	§J	30	7.5	60	5.0	60	1.0m	4.0Ø	15	15	60 #	4.0M§Δ	130m#			MD6d	AØ
98▼	MJ4502	1.1	200 Ø	§J	30	7.5	100	4.0	90	1.0m	2.0Ø	7.5	25	100 #	2.0M§Δ				MD6d	CØ
99	ST54004	1.2	125 Ø	§J	40		80		80	100u	10	10	30	120	20M	100m	1.5u	PE	TO63	
100	ST54005	1.2	125 Ø	§J	40		100		100	100u	10	10	30	120	20M	100m	1.5u	PE	TO63	
101	ST54006	1.2	125 Ø	§J	60		120		120	100u	10	10	30	120	20M	100m	1.5u	PE	TO63	
102	2N5683	1.7	300 Ø	§J	50	15	60	5.0	60	2.0m	2.0Ø	25	15	60 #	2.0M§Δ				MD6d	CØ
103	2N5684	1.7	300 Ø	§J	50	15	80	5.0	80	2.0m	2.0Ø	25	15	60 #	2.0M§Δ				MD6d	CØ
104	ST40002	2.0	200 Ø	§J	60		80		80	100u	10	30	20	120	20M	60m	1.5u	PE	TO63	
105	ST40003	2.0	200 Ø	§J	60		100		100	100u	10	30	20	120	20M	60m	1.5u	PE	TO63	
106	ST40004	2.0	200 Ø	§J	60		120		120	100u	10	30	20	120	20M	60m	1.5u	PE	TO63	
107	2N3774†	50 $	5.0 Ø	§J	1.0	500m	40	8.0	40	500u#	2.0Ø	200m	20	60 #	1.0M§Δ		3.0uØ		TO5	AØ
108	2N3775†	50 $	5.0 Ø	§J	1.0	500m	60	8.0	60	500u#	2.0Ø	200m	20	60 #	1.0M§Δ		3.0uØ		TO5	AØ
109	2N3776†	50 $	5.0 Ø	§J	1.0	500m	80	8.0	80	500u#	2.0Ø	200m	20	60 #	1.0M§Δ		3.0uØ		TO5	AØ
110	2N3777†	50 $	5.0 Ø	§J	1.0	500m	100	8.0	100	500u#	2.0Ø	200m	20	60 #	1.0M§Δ		3.0uØ		TO5	AØ

10. SILICON PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MAX	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1	2N3778†	50 $	5.0 Ø	§J	1.0	500m	40	8.0	40	500u#	2.0Ø	200m	10	40 #	1.0M§Δ		3.0uØ		TO5	AØ
2	2N3779†	50 $	5.0 Ø	§J	1.0	500m	60	8.0	60	500u#	2.0Ø	200m	10	40 #	1.0M§Δ		3.0uØ		TO5	AØ
3	2N3780†	50 $	5.0 Ø	§J	1.0	500m	80	8.0	80	500u#	2.0Ø	200m	20	60 #	1.0M§Δ		3.0uØ		TO5	AØ
4	2N3781†	50 $	5.0 Ø	§J	1.0	500m	100	8.0	100	500u#	2.0Ø	200m	10	40 #	1.0M§Δ		3.0uØ		TO5	AØ
5	2N3782†	50 $	5.0 Ø	§J	3.0	1.0	40	8.0	40	500u#	3.0Ø	1.0	10	40 #	1.0M§Δ		3.0uØ		TO5	AØ
6	2N5404†	50 $	1.0	§J	5.0	2.0	80	6.0	80	10u#	5.0Ø	2.0	20	60	40M§Δ	1.0	500n		TO5	AØ
7	2N5405†	50 $	1.0	§J	5.0	2.0	100	6.0	100	10u#	5.0Ø	2.0	20	60	40M§Δ	1.0	500n		TO5	AØ
8	2N5406†	50 $	1.0	§J	5.0	2.0	80	6.0	80	10u#	5.0Ø	2.0	40	120	40M§Δ	800m	500n		TO5	AØ
9	2N5407†	50 $	1.0	§J	5.0	2.0	100	6.0	100	10u#	5.0Ø	2.0	40	120	40M§Δ	800m	500n		TO5	AØ

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AE XM P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CONFIG.
1	2N2239		1.0 Ø	#J	500m		60		50	10uØ	10	200m	50 Ø	†	2.5M†				TO37	AØ
2#	2SC291		1.0	§J	3.0		70	5.0	40	3.0uØ	2.0Ø	1.0	40 Ø		90M§			PE	TO5	
3#	2SC292		1.0	§J	3.0		100	5.0	60	3.0uØ	2.0Ø	100m	70 Ø		90M§			PE	TO5	
4#	2SC293		1.0	§J	3.0		130	5.0	80	3.0uØ	2.0Ø	100m	70 Ø		90M§			PE	TO5	
5#	2SC517		10 Ø	§J	2.0		60	4.0	60	10uØ	5.0Ø	500	10	140	300k§			PE	TO37	A
6#	2SC571		6.0 Ø	§J	1.5		36	4.0	18	5.0uØ	13Ø	100m	30 Ø		250M§			PE	TO39	Ø
7#	2SC572		10 Ø	§J	3.0		36	4.0	18	5.0uØ	13Ø	200m	30 Ø		250M§			PE	TO60	☑
8#	2SC573		20 Ø	§J	4.0		36	4.0	18	10uØ	13Ø	400m	40 Ø		250M§			PE	TO60	☑
9#	2SC608T		1.0		1.5 #		75	4.0	60	5.0m	4.0Ø	.10	10						MD25	
10#	2SC609T		1.0		1.5 #		75	4.0	60	5.0m	4.0Ø	.10	10						MD25	
11#	2SC664		50		5.0	1.5	100	5.0	5.0		5.0Ø	1.0	35	200	300k				TO3	
12#	2SC680		8.0 Ø		2.0	1.0	200	6.0	120		10Ø	.20	60	240					TO66	
13#	2SC680A		8.0 Ø		2.0	1.0	200	6.0	140		10Ø	.20	45	180					TO66	
14#	2SC681		50 Ø		6.0		200	5.0	70	15m							.20u#		TO3	
15#	2SC681A		50 Ø		6.0		250	5.0	80								.20u#		TO3	
16#	2SC685		3.0 †		.10		300	3.0	300 §		10Ø	.05	30	150	20M§			TD	TO3	
17#	2SC685A		6.5 Ø		.10		300	4.0	300		10Ø	.05	30	160	25M§				TO66	
18#	2SC756		10 Ø	§J	4.0	800m	130	6.0	40	3.0uØ	2.0Ø	100m	80 Ø		60M§	450m		EM	TO5	Ø
19#	2SC795		9.0 Ø	§J	100m	10m	250	6.0	200	10uØ	10Ø	10m	70 Ø					D	MD17	Ø
20#	2SC806		125 Ø	§J	10	1.0	650	10		5.0mØ	3.0Ø	2.0	30 Ø		5.5k§	600m		D	TO3	Ø
21#	2SC807		125 Ø	§J	10	1.0	500	10	220	5.0mØ	3.0Ø	100	50 Ø		5.5k§	1.0		D	TO3	Ø
22#	2SC821		1.7 Ø	§J	600m		40	4.0	20	1.0uØ	13Ø	100m	20		350M§			PE	TO39	
23#	2SC822		2.5 Ø	§J	800m		40	4.0	20	1.0uØ	13Ø	100m	20		400M§			PE	TO39	
24#	2SC830		25 Ø		3.0		50	4.0	50		4.0Ø	1.0	35	200	20M§				TO66	
25#	2SC833		25	§J	2.0		450	6.0	300	.10mØ	10Ø	.10	40	80 Ø	20M§			ME	TO66	
26#	2SC898		80 Ø		7.0	7 Ø	150	5.0	100	1.0m	5.0Ø	1.0	25	200					TO3	
27#	2SC935				2.5 Ø	2.5 Ø	300	5.0	300	5.0m	10Ø	.30	8.0						TO3	
28#	2SC936		12		1.0		1.0k	5.0	500	1.0m	10Ø	100m	30	120					TO3	
29#	2SC937		22 Ø		2.5	2.5 Ø	1.2k	6.0	500	5.0m		300m	8.0	120					TO3	
30▼#	2SC996		1.2	§J	100m		300	5.0	300	100nØ	10Ø	50m	80 Ø		100M§			DPL	TO37	A
31#	2SC1001		5.0 Ø	§J	500m		36	4.0	18	10uØ	2.0Ø	100m	10	250	800M§			PE	TO5	A
32#	2SC1002		10 Ø	§J	1.0		36	4.0	18	20uØ	2.0Ø	200m	10	250	700M§			PE	TO60	A
33#	2SC1003		20 Ø	§J	2.0		36	4.0	18	50uØ	2.0Ø	400	20	250	600k§			PE	TO60	A
34#	2SD28		18 Ø	§J	3.0	1.0	70		40	20uØ	1.0Ø	100m	32	276				D	MD17	Ø
35#	2SD29		18 Ø	§J	3.0	1.0	70		60	20uØ	1.0Ø	100m	32	276				D	MD17	Ø
36#	2SD49		18 Ø	§J	3.0	1.0	100	10	60	20uØ	3.0Ø	1.0	25	100	2.0M†	600m▼		D	MD17	Ø
37#	2SD51		50 Ø	§J	5.0	1.5	100	6.0	50	5.0mØ		2.0	30	120	10k†	500m		ME	TO3	Ø
38#	2SD56		30 Ø	§J	3.0	1.0	220	18	80	50uØ	1.0Ø	100m	15	150				D	MD17	Ø
39#	2SD102		25 Ø	§J	3.0		100	10	80	100uØ	5.0Ø	500m	30	300	1.5M†			D	TO66	C
40	3TX601		7.0 Ø	§J	1.0		36	4.0	18	1.0mØ	5.0Ø	100m	10	60	300M§Δ	1.2			MT72g	R
41	3TX602		20 Ø	§J	4.0		36	4.0	18	1.0mØ	5.0Ø	200m	20	100	250M§Δ	300m			MT72g	R
42	3TX603				6.0		40	4.0	20	.10m	5.0Ø	500	10	200	300M§Δ			PE		
43#	100T2		85 Ø						80	10mØ	12Ø	2.0	40 †	120 #	10k§	500m		PE	TO3	
44#	104T2		85 Ø						50	10mØ	12Ø	2.0	20 †	#		1.0		PE	TO3	
45#	BLY47†		40 Ø	§J	3.0 †	2.0	100 †	8.0	75	50uØ	10Ø	1.0	30	100 #	15M§Δ		1.0uØØ☑	DM	TO3	CØ
46#	BLY47A†		40 Ø	§J	3.0 †	2.0	100 †	8.0	75	50uØ	10Ø	1.0	30	100 #	15M§Δ		1.0uØØ☑	DM	TO66	CØ
47#	BLY48†		40 Ø	§J	3.0 †	2.0	100 †	8.0	75	50uØ	10Ø	1.0	60	200 #	15M§Δ		1.0uØØ☑	DM	TO3	CØ
48#	BLY48A†		40 Ø	§J	3.0 †	2.0	100 †	8.0	75	50uØ	10Ø	1.0	60	200 #	15M§Δ		1.0uØØ☑	DM	TO66	CØ
49#	BLY49†		40 Ø	§J	3.0 †	2.0	250 †	8.0	150	50uØ	10Ø	1.0	30	100 #	15M§Δ		1.0uØØ☑	DM	TO3	CØ
50#	BLY49A†		40 Ø	§J	3.0 †	2.0	250 †	8.0	150	50uØ	10Ø	1.0	30	100 #	15M§Δ		1.0uØØ☑	DM	TO66	CØ
51#	BLY50†		40 Ø	§J	3.0 †	2.0	250 †	8.0	150	50uØ	10Ø	1.0	60	200 #	15M§Δ		1.0uØØ☑	DM	TO3	CØ
52#	BLY50A†		40 Ø	§J	3.0 †	2.0	250 †	8.0	150	50uØ	10Ø	1.0	60	200 #	15M§Δ		1.0uØØ☑	DM	TO66	CØ
53#	BLY61		5.0 Ø	§A	500m†	100m	36 †	4.0	18	100u	5.0	250m	10	120	400k			PE	TO39	AØ
54#	BLY62		11 Ø	§A	2.0 †	500m	36 †	4.0	18	100u	5.0	250m	10	120	400k			PE	TO117	GE
55#	BLY63		17 Ø	§A	5.0 †	2.0	36 †	4.0	18	100u	5.0	250m	10	120	400k			PE	TO117	GE
56#	BU106			#C	10	3.0		8.0	325 Ø							1.2 ▼	1.0u§	DMΔ	TO3	
57#	BU107			#C	5.0	3.0		8.0	300 Ø							1.2 ▼	1.0u§	DMΔ	TO3	
58	PT896		1.6 Ø				45	5.0	50 §	.30mØ									TO5	
59	SD1023		2.0	§A	100m		45	3.5	25	40uΔ	5.0Ø	720m	5.0		700M§	5.0			TO60	
60#	BSX48†	2.0m	1.0 *	§J	600m		50	5.0	25	120nØ	1.0Ø	100mØ		42	400M§☑			DPE	TO18	AØ
61#	BSX49†	2.0m	1.0 *	§J	600m		60	5.0	40	70nØ	1.0Ø	100mØ		42	400M§☑			DPE	TO18	AØ
62	A210	4.0mØ	3.5 Ø	§J	150m		40	2.0	25 ☑	20u†Ø	5.0Ø	50m	25		1.2G§			PEØ	TO39	A
63	A211	4.0mØ	3.5 Ø	§J	150m		40	2.0	25 ☑	20u†Ø	5.0Ø	50m	25		1.1G§			PEØ	TO39	A
64	TRS140MP	4.5m	1.0	§	400m		140	6.0	140 §	3.0uØ	4.0Ø	50m	30	#	50M§Δ				TO5	
65	TRS160MP	4.5m	1.0	§	400m		160	6.0	160 §	3.0uØ	4.0Ø	50m	30	#	50M§Δ				TO5	
66	TRS180MP	4.5m	1.0	§	400m		180	6.0	180 §	3.0uØ	4.0Ø	50m	30	#	50M§Δ				TO5	
67	TRS200MP	4.5m	1.0	§	400m		200	6.0	200 §	2.0uØ	4.0Ø	50m	20	#	50M§Δ				TO5	
68	TRS225MP	4.5m	1.0	§	400m		225	6.0	225 §	3.0uØ	4.0Ø	50m	22	#	50M§Δ				TO5	
69	TRS250MP	4.5m	1.0	§	400m		250	6.0	250 §	2.0uØ	4.0Ø	50m	20	#	50M§Δ				TO5	
70	TRS275MP	4.5m	1.0	§	400m		275	6.0	275 §	3.0uØ	4.0Ø	50m	22	#	50M§Δ				TO5	
71	TRS301MP	4.5m	1.0	§	400m		300	6.0	300 §	2.0uØ	4.0Ø	50m	30	#	50M§Δ				TO5	
72	TRS325MP	4.5m	1.0	§	400m		325	6.0	325 §	3.0mØ	4.0Ø	50m	22	#	50M§Δ				TO5	
73	TRS350MP	4.5m	1.0	§	400m		350	6.0	350 §	2.0mØ	4.0Ø	50m	20	#	50M§Δ				TO5	
74	TRS375MP	4.5m	1.0	§	400m		375	6.0	375 §	3.0mØ	4.0Ø	50m	22	#	50M§Δ				TO5	
75	TRS401MP	4.5m	1.0	§	400m		400	6.0	400 §	2.0mØ	4.0Ø	50m	30	#	50M§Δ				TO5	
76	TRS425MP	4.5m	1.0	§	400m		425	6.0	425 §	3.0mØ	4.0Ø	50m	22	#	50M§Δ				TO5	
77	TRS451MP	4.5m	1.0	§	400m		450	6.0	450 §	2.0mØ	4.0Ø	50m	30	#	50M§Δ				TO5	
78	TRS475MP	4.5m	1.0	§	400m		475	6.0	475 §	2.0mØ	4.0Ø	50m	22	#	50M§Δ				TO5	
79	TRS501MP	4.5m	1.0	§	400m		500	6.0	500 §	10mØ	4.0Ø	25m	30	#	50M§Δ				TO5	
80	TRS525MP	4.5m	1.0	§	400m		525	6.0	525 §	10mØ	4.0Ø	25m	22	#	50M§Δ				TO5	
81	TRS550MP	4.5m	1.0	§	400m		550	6.0	550 §	10mØ	4.0Ø	25m	20	#	50M§Δ				TO5	
82	TRS575MP	4.5m	1.0	§	400m		575	6.0	575 §	10mØ	4.0Ø	25m	22	#	50M§Δ				TO5	
83	TRS601MP	4.5m	1.0	§	400m		600	6.0	600 §	10uØ	4.0Ø	25m	30	#	50M§Δ				TO5	
84	A203	5.0mØ	3.5 Ø	§J	400m		40	2.0	20	20uΔ	5.0Ø	100m	10	200	700M§	5.0		PE	TO39	A
85	2N2726	5.5m	1.0	§J	500m		200	10	200 §	1.0uØ	10Ø	200m	60 Ø	#	15M§Δ				TO5	AØ
86	2N2727	5.5m	1.0	§J	500m		200	10	200 §	1.0uØ	10Ø	200m	110 Ø	#	15M§Δ				TO5	AØ
87#	2SC776	5.5m	1.0	§J	1.0		75	4.0	75 §	10uØ	10Ø	100mØ	5.0	#	200M§			PE	TO39	AØ
88#	2SC816	5.5m	1.0	§J	1.0		60	4.0	30	10uØ	6.0Ø	100m	55	#	140M§			PE	TO5	AØ
89#	ZT2102	5.5m	1.0	§J	1.0		120	6.0	65	1.0u	10Ø	150m	40	#	60M§Δ			PLØ	TO5	Ø
90♦	2N2405	5.7m	1.0	§S	1.0		120	7.0	90	10nØ	10Ø	150m	60	200 #					TO5	AØ
91	2N2987	5.7m	1.0	§C	1.0	200m	95	7.0	80	30n§	5.0Ø	200m	25	75 #	30M§Δ				TO5	AØ
92	2N2988	5.7m	1.0	§C	1.0	200m	155	7.0	100	30n§	5.0Ø	200m	25	75 #	30M§Δ				TO5	AØ
93	2N2989	5.7m	1.0	§C	1.0	200m	95	7.0	80	30n§	5.0Ø	200m	60	120 #	30M§Δ				TO5	AØ
94	2N2990	5.7m	1.0	§C	1.0	200m	155	7.0	100	30n§	5.0Ø	200m	60	120 #	30M§Δ				TO5	AØ
95	2N3418†	5.7mØ	1.0	§C	3.0	1.0	85	8.0	60	500n#	2.0Ø	1.0	20	60 #	40M§Δ		300nØ		TO5	AØ
96	2N3419†	5.7mØ	1.0	§C	3.0	1.0	125	8.0	80	500n#	2.0Ø	1.0	20	60 #	40M§Δ		300nØ		TO5	AØ
97	2N3420†	5.7mØ	1.0	§C	3.0	1.0	85	8.0	60	500n#	2.0Ø	1.0	40	120 #	40M§Δ		300nØ		TO5	AØ
98	2N3421†	5.7mØ	1.0	§C	3.0	1.0	125	8.0	80	500n#	2.0Ø	1.0	40	120 #	40M§Δ		300nØ		TO5	AØ
99♦	2N3439	5.7mØ	1.0	§S	1.0	500m	450 †	7.0†	350 ☑	20uØ	10Ø	20m	40	160	15M§Δ	10			TO5	AØ
100♦	2N3440	5.7mØ	1.0	§S	1.0	500m	300 †	7.0†	250 ☑	20uØ	10Ø	20m	40	160	15M§Δ	10			TO5	AØ
101	2N3444†	5.7mØ	1.0	§S	1.0		80	5.0	50	500nØ	1.0Ø	500mØ	20	60 #	150M§Δ		35n☑		TO5	AØ
102	2N3498	5.7mØ	1.0	§S	500m		100	6.0	100	50nØ	10Ø	150m	40	120 #	150M§Δ				TO5	AØ
103	2N3499	5.7mØ	1.0	§S	500m		100	6.0	100	50nØ	10Ø	150m	100	300 #	150M§Δ				TO5	AØ
104	2N3500	5.7mØ	1.0	§S	300m		150	6.0	150	50nØ	10Ø	150m	40	120 #	150M§Δ				TO5	AØ
105	2N3501	5.7mØ	1.0	§S	300m		150	6.0	150	50nØ	10Ø	150m	100	300 #	150M§Δ				TO5	AØ
106	2N3506†	5.7mØ	1.0	§S	3.0		60	5.0	40	1.0m#	2.0Ø	1.5	40	200	60M§Δ	1.0	30n☑		TO5	AØ
107	2N3507†	5.7mØ	1.0	§S	3.0		80	5.0	50	1.0m#	2.0Ø	1.5	30	150	60M§Δ	1.0	30n☑		TO5	AØ
108	2N3724A†	5.7m	1.0	§S	1.2		50	6.0	30	500uØ	1.0Ø	100m	60	150	300M§Δ		30n		TO5	AØ
109	2N3725A†	5.7m	1.0	§S	1.2		80	6.0	50	500uØ	1.0Ø	100m	60	150	300M§Δ		30n		TO5	AØ
110	JAN2N3735†	5.7mØ	1.0	§J	1.5		75	5.0	50 *	250nØ	1.0Ø	10m	35		250M§Δ	20	40n☑		TO5	AØ

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N5189†	5.7m	1.0	§S	2.0		60	5.0	35	100u	1.0Ø	1.0	15		400M§Δ				R81	AØ
2	2N5262†	5.7m	1.0	§	2.0		75	5.0	50	1.0u§	1.0Ø	500m	40 Ø		350M§			PE	TO39	AØ
3▼	2N5681	5.7m	1.0	§J	1.0	500m	100 †	4.0†	100	1.0u	2.0Ø	250m	40	150	30M§Δ	2.0			TO5	AØ
4▼	2N5682	5.7m	1.0	§J	1.0	500m	120 †	4.0†	120	1.0u	2.0Ø	250m	40	150	30M§Δ	2.0			TO5	AØ
5	MM1812	5.7m	1.0	§J	100m		175	4.0	175	100nØ	10Ø	10mØ	35	200 #					TO5	
6	MM2258	5.7m	1.0	§J	500m		120	5.0	120	50nØ	10Ø	10m	35 #		150M§Δ	16		AN	TO5	AØ
7	MM2259	5.7m	1.0	§J	300m		175	5.0	175	50nØ	10Ø	10m	50 #		150M§Δ	16		AN	TO5	AØ
8	MM2260	5.7m	1.0	§J	300m		175	5.0	175	50nØ	10Ø	10m	50 #		150M§Δ	16		AN	TO5	AØ
9	MM3000	5.7m	1.0	§J	200m			5.0	100 *	1.0uØ	10Ø	10m	20		150M§Δ			E	TO39	A
10	MM3001	5.7m	1.0	§J	200m			5.0	150 *	1.0uØ	10Ø	10m	20		150M§Δ			E	TO39	A
11	MM3002	5.7m	1.0	§J	50m			5.0	200 *	5.0uØ	10Ø	10m	20		150M§Δ			E	TO39	A
12	MM3003	5.7m	1.0	§J	50m			5.0	250 *	5.0uØ	10Ø	10m	20		150M§Δ			E	TO39	A
13	MM3008	5.7m	1.0	§J	400m			6.0	120 *	100nØ	10Ø	10m	40		50k				TO39	A
14	MM3009	5.7m	1.0	§J	400m			6.0	180 *	100nØ	10Ø	10m	40		50M§Δ				TO39	A
15#	TIXS12	5.7m	1.0	§J	200m		30	2.0	15	500u	10Ø	50m	20		1.4G			PE	X39	
16#	TIXS13	5.7m	1.0	§J	200m		30	2.0	15	500u	10Ø	50m	20		1.2G			PE	X39	
17	2N5148	6.0m	1.0	§J	2.0	1.0	100	6.0	80	1.0m#	5.0Ø	1.0	30	90	50M§Δ				TO39	AØ
18	2N5150	6.0m	1.0	§J	2.0	1.0	100	6.0	80	1.0m#	5.0Ø	1.0	70	200	60M§Δ				TO39	AØ
19	2N5152	6.0m	1.0	§J	2.0	1.0	100	6.0	80	1.0m#	5.0Ø	2.5	30	90	60M§Δ				TO39	AØ
20	2N5154	6.0m	1.0	§J	2.0	1.0	100	6.0	80	1.0m#	5.0Ø	2.5	70	200	70M§Δ				TO39	AØ
21	2N3298	6.6mØ	1.0	§J	100m		25	3.0	15	50u	1.0Ø	10m	80		200M§Δ				TO18	AØ
22	2N4069	6.6mØ	1.0	§S	200m		150	5.0	150	50nØ	10Ø	30m	30		50M§Δ	100			R119	
23#	2SD78	6.6m	1.0	§J	2.0		100	12	60	1.0uØ	2.0Ø	500m	80 #	†				PE	TO5	
24#	2SD120	6.6mØ	1.0	§J	1.5	1.0	60	12	40	10u	4.0Ø	200m	15	100	24k	5.0		D	TO5	
25#	2SD121	6.6mØ	1.0	§J	1.5	1.0	100	12	55	10u	4.0Ø	200m	15	100	24k	5.0		D	TO5	
26	40355	6.6m	1.0	§J	50m			5.0	150	100nØ	10Ø	10m	55 Ø		100M§Δ				R115	G
27#	BCY65	6.6m*	1.0 Ø	§J	200m			7.0	60	10nØ	5.0Ø	2.0m	125	700 *	150M§Δ			PL	TO18	
28#	BCY66	6.6m*	1.0 Ø	§J	200m		45	7.0	45	10nØ	5.0Ø	2.0m	250	330	150M§Δ			PL	TO18	
29#	DT1110	6.6mØ	5.0 Ø	§J	500m	50m	30	10	30	2.0u	6.0Ø	300m	20	60	500k†	4.0	1.0u	D	TO5	
30#	DT1111	6.6mØ	5.0 Ø	§J	500m	50m	60	10	60	2.0u	6.0Ø	300m	20	60	500k†	4.0	1.0u	D	TO5	
31#	DT1112	6.6mØ	5.0 Ø	§J	500m	50m	100	10	100	2.0u	6.0Ø	300m	20	60	500k†	4.0	1.0u	D	TO5	
32#	DT1120	6.6mØ	5.0 Ø	§J	500m	50m	30	10	30	2.0u	6.0Ø	300m	40	120	1.5M†	4.0	1.0u	D	TO5	
33#	DT1121	6.6mØ	5.0 Ø	§J	500m	50m	60	10	60	2.0u	6.0Ø	300m	40	120	1.5M†	4.0	1.0u	D	TO5	
34#	DT1122	6.6mØ	5.0 Ø	§J	500m	50m	100	10	100	2.0u	6.0Ø	300m	40	120	1.5M†	4.0	1.0u	D	TO5	
35	MT1070	6.6m	1.5 Ø	§J	80m		30	4.0	14 Ø	50nØ	5.0Ø	5.0m	40	185	1.5G§			PE	X77	AØ
36	TIS82†	6.6mØ	1.0	§	1.2		60	5.0	40	500nØ	5.0Ø	1.0	25 Ø		250M§Δ			PE	TO5	
37	TRL2014	6.6mØ	1.0	§S	3.0	1.0	200	4.0	200 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
38	TRL2254S	6.6mØ	1.0	§S	3.0	1.0	250	4.0	225	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
39	TRL2504	6.6mØ	1.0	§S	3.0	1.0	250	4.0	250 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
40	TRL2504S	6.6mØ	1.0	§S	3.0	1.0	275	4.0	250	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
41	TRL2754S	6.6mØ	1.0	§S	3.0	1.0	300	4.0	275	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
42	TRL3014	6.6mØ	1.0	§S	3.0	1.0	300	4.0	300 §	10m	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
43	TRL3014S	6.6mØ	1.0	§S	3.0	1.0	325	4.0	300	10m	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
44	TRL3504	6.6mØ	1.0	§S	3.0	1.0	350	4.0	350 §	10m	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
45	TRL4014	6.6mØ	1.0	§S	3.0	1.0	400	4.0	400 §	10m	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
46	TRL4014S	6.6mØ	1.0	§S	3.0	1.0	425	4.0	400	10m	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
47	TRL4504	6.6mØ	1.0	§S	3.0	1.0	450	4.0	450 §	10m	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
48	TRL5014	6.6mØ	1.0	§S	3.0	1.0	500	4.0	500 §	10m	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
49	TRL5014S	6.6mØ	1.0	§S	3.0	1.0	525	4.0	500	10m	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
50	TRL5504	6.6mØ	1.0	§S	3.0	1.0	550	4.0	550 §	10m	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
51	TRL6014	6.6mØ	1.0	§S	3.0	1.0	600	4.0	600 §	10m	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
52	TRL6504	6.6mØ	1.0	§S	3.0	1.0	650	4.0	650 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
53	TRL7014	6.6mØ	1.0	§S	3.0	1.0	700	4.0	700 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
54	TRL7504	6.6mØ	1.0	§S	3.0	1.0	750	4.0	750 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
55	TRL8014	6.6mØ	1.0	§S	3.0	1.0	800	4.0		10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	TO5	
56	TRM2014	6.6mØ	1.0	§S	3.0	1.0	200	6.0		3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400m	DM	TO5	
57	TRM2254S	6.6mØ	1.0	§S	3.0	1.0	250	6.0	225	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	TO5	
58	TRM2504	6.6mØ	1.0	§S	3.0	1.0	250	6.0		3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	TO5	
59	TRM2504S	6.6mØ	1.0	§S	3.0	1.0	275	6.0	250	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	TO5	
60	TRM2754S	6.6mØ	1.0	§S	3.0	1.0	300	6.0	275	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	TO5	
61	TRM3014	6.6mØ	1.0	§S	3.0	1.0	300	6.0		3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	TO5	
62	TRM3014S	6.6mØ	1.0	§S	3.0	1.0	325	6.0	300	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	TO5	
63	TRM3504	6.6mØ	1.0	§S	3.0	1.0	350	6.0		3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	TO5	
64	TRM3514S	6.6mØ	1.0	§S	3.0	1.0	375	6.0	350	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	TO5	
65	TRM4014	6.6mØ	1.0	§S	3.0	1.0	400	6.0		3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	TO5	
66	TRM4014S	6.6mØ	1.0	§S	3.0	1.0	425	6.0	400	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	TO5	
67	TRM4504	6.6mØ	1.0	§S	3.0	1.0	450	6.0		3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	TO5	
68	TRM5014	6.6mØ	1.0	§S	3.0	1.0	500	6.0		3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	TO5	
69	TRM5014S	6.6mØ	1.0	§S	3.0	1.0	525	6.0	500	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	TO5	
70	TRM5504	6.6mØ	1.0	§S	3.0	1.0	550	6.0		3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	TO5	
71	TRM6014	6.6mØ	1.0	§S	3.0	1.0	600	6.0		3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	TO5	
72	TRM6504	6.6mØ	1.0	§S	3.0	1.0	650	6.0		3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	TO5	
73	TRM7014	6.6mØ	1.0	§S	3.0	1.0	700	6.0		3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	TO5	
74	TRM7504	6.6mØ	1.0	§S	3.0	1.0	750	6.0		3.0u	10Ø	1.0	10	15 Ø	20M§Δ			DM	TO5	
75	TRM8014	6.6mØ	1.0	§S	3.0	1.0	800	6.0	800 §	3.0u	10Ø	1.0	10	15 Ø	20M§Δ			DM	TO5	
76	TRS301LC	6.6m	1.0	§J	400m		300	5.0	300	10uØ	10Ø	20m	40	65 Ø				D	TO5	
77	TRS401LC	6.6m	1.0	§J	400m		400	5.0	400	10uØ	10Ø	20m	30	65 Ø				D	TO5	
78	2N2983	6.7m	1.0	§J	3.0	1.0	155	8.0	80	10u§	5.0Ø	1.0	20	60 #	60M§	600m			TO5	AØ
79	2N2984	6.7m	1.0	§J	3.0	1.0	185	8.0	120	10u§	5.0Ø	1.0	20	60 #	60M§	600m			TO5	AØ
80	2N2985	6.7m	1.0	§J	3.0	1.0	155	8.0	80	10u§	5.0Ø	1.0	40	120 #	60M§	600m			TO5	AØ
81	2N2986	6.7m	1.0	§J	3.0	1.0	185	8.0	120	10u§	5.0Ø	1.0	40	120 #	60M§	600m			TO5	AØ
82	TRL3514S	6.7mØ	1.0 §	S	3.0	1.0	375	4.0	350	.01m	10Ø	.50	15	35 Ø	20M§Δ		.40u	DM	TO5	
83	2N3469	6.9m	1.2	§C	5.0	500m	35	5.0	25	100nØ	1.0Ø	500m	100	350 #	20M§Δ	500m			TO5	Ø
84	NS9001†	6.9m	1.2	§J	5.0	500m	100	8.0	80	200nØ	5.0Ø	1.0	30	350 #	20M§Δ	600m	250u†Ø	PL	TO39	AØ
85	2N5541†	7.1m	1.2	§J	5.0	1.0	175	8.0	130	500nØ	5.0Ø	5.0	30	90 #	20M§Δ		500n		TO5	AØ
86#	2SC730	7.1m	1.2	§J	400m		40	3.0	40 §	10uØ	10Ø	100mØ	5.0	#	500M§			PE	TO39	A
87#	2SC51	7.6m	1.0	§J	300m		60	5.0	40 §	100nØ	6.0Ø	1.0m	50					ME	R56	
88#	2SC61†	7.6m	1.2	§J	300m		30	5.0	20 §	1.0uØ	6.0Ø	1.0m	50		180M§			ME△	R56	
89	2N343A	8.0m	1.0 Ø	§J	60m		60	1.0	60	1.0uØ	10	5.0 Δ	28	90 †		350			TO11	
90	2N2106	8.0mØ	1.0	§J	500m		60	8.0	60 §	200uØ	10Ø	200m	12	36 #					TO5	AØ
91	2N2107	8.0m	1.0	§J	500m		60	8.0	60 §		10Ø	200m	30	90 #					TO5	AØ
92	2N2108	8.0m	1.0	§J	500m		60	8.0	60 §		10Ø	200m	75	200 #					TO5	AØ
93	2N4073	8.6m	1.5 Ø	§S	150m		40	4.0	20	100nØ	2.0Ø	25m	10		300M§Δ				TO5	AØ
94	JAN2N3418†	10m$	1.0	§A	3.0		85	8.0	60	500n#	2.0Ø	1.0	20	60 #	40M§Δ		300nØØ		TO5	A
95	JAN2N3419†	10m$	1.0	§A	3.0		125	8.0	80	500n#	2.0Ø	1.0	20	60 #	40M§Δ		300nØØ		TO5	A
96	JAN2N3420†	10m$	1.0	§A	3.0		85	8.0	60	500n#	2.0Ø	1.0	40	120 #	40M§Δ		300nØØ		TO5	A
97	JAN2N3421†	10m$	1.0	§A	3.0		125	8.0	80	500n#	2.0Ø	1.0	40	120 #	40M§Δ		300nØØ		TO5	A
98	2N5079	10m	1.8 Ø	§S	1.0	200m	60	5.0	30	10nØ	10Ø	150m	100	300	400M§Δ	1.0		Ø	TO18	AØ
99	2N5080	10m	1.8 Ø	§S	1.0	200m	60	5.0	30	10uØ	10Ø	150m	200	500	500M§Δ	1.0		Ø	TO18	AØ
100#	2SC213	10m	1.5	§J	600m		50			100pØ	10Ø	20mΔ		50 †	150M§			PL	TO8	
101#	2SC214	10m	1.5	§J	600m		25			100p	10Ø	20mΔ		50 †	150M§			PL	TO8	
102#	2SC215	10m	1.5	§J	600m		80			100pØ	10Ø	20mΔ		50 †	150M§			PL	TO8	
103#	2SC223	10m	1.5	§J	1.0		50			100pØ	10Ø	20mΔ		20 †	150M§			PE	TO8	
104#	2SC224	10m	1.5	§J	1.0		25			100pØ	10Ø	20mΔ		20 †	150M§			PE	TO8	
105#	2SC225	10m	1.5	§J	1.0		80			100pØ	10Ø	20mΔ		20 †	150M§			PE	TO8	
106#	2SC229	10m	1.5	§J	1.0		80	5.0	80 §	100pØ	1.0Ø	100m		50 Ø		3.5	45n	PEΔ	TO8	
107	KD4025	10m	1.0 Ø$	§J	100m		20	2.0	10	300n	6.0Ø	50m	20		1.2G§			Ø	X72	V
108	2N2991	11m	2.0	§C	1.0	200m	95	7.0	80	30n§	5.0Ø	200m	25	75 #	30M§Δ				MT13	AØ
109	2N2992	11m	2.0	§C	1.0	200m	155	7.0	100	30n§	5.0Ø	200m	25	75 #	30M§Δ				MT13	AØ
110	2N2993	11m	2.0	§C	1.0	200m	95	7.0	80	30n§	5.0Ø	200m	60	120 #	30M§Δ				MT13	AØ

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N2994	11m	2.0	§C	1.0	200m	155	7.0	100		5.0Ø	200m	60	120 #	30M§Δ				MT13	AØ
2	2N5581†	11m	2.0 Ø	§S	800m		75	6.0	40	10nØ	10Ø	100u	20		250M§Δ		25n		TO46	AØ
3	2N5582†	11m	2.0 Ø	§S	800m		75	6.0	40	10nØ	10Ø	100u	35		300M§Δ		25n		TO46	AØ
4	40081	11m	2.0 Ø	§J	250m			2.0		10u					27M*			DPL	TO5	AØ
5	2N2952	12m	1.8 Ø	§C	250m	50m		5.0	60 Ø	100pØ	10Ø	10	20	150	200M§Δ	3.3			TO18	AØ
6#	2SC130	12m	1.8	§J	400m		60		50 §	100nØ	10Ø	20mΔ	20 †	150	160M†			PL	TO8	
7#	2SC234	12m	1.8	§J	1.5		100			1.0mØ	10Ø	150mΔ		20 †	140M§			EM	TO8	
8#	2SC235	12m	1.8	§J	1.5		100			1.0mØ	10Ø	150mΔ		20 †	120M§			EM	TO8	
9#	2SC236	12m	1.8	§J	500m		90			100pØ	10Ø	20mΔ		17 †	100M§			EM	TO8	
10	2N1092†	13m	2.0 Ø	§A	500m	200m	60	12	30	500u	4.0Ø	200m	15	75	1.5M†	10	1.2u	D	TO5	AØ
11	2N3295	13m	2.0 Ø	§C	250m	50m	60	5.0	60 Ø	100nØ	10Ø	10m	20	60	200M§Δ	3.3			TO5	AØ
12	2N5280	13m	15 Ø	§A	1.0	500m	400	7.0	300 ☑	20uØ	10Ø	20m	40	160	15M§Δ	10			MD14	AØ
13#	71T2	13m	2.0	§J			80	5.0	60 *	50uΔ	2.0Ø	1.0	30	90 #					MD14	AØ
14#	72T2	13m	2.0	§J			80	5.0	60 *	50uΔ	2.0Ø	1.0	75	200 #					MD14	AØ
15#	73T2	13m	2.0	§J			80	5.0	60	75u	10Ø	200m	30	90 #					MD14	AØ
16#	74T2	13m	2.0	§J			80	5.0	60	75u	10Ø	200m	75	200 #					MD14	AØ
17	TRL4015S	13mØ	2.0	§S	3.0	1.0	425	4.0	400	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
18	TRL4505	13mØ	2.0	§S	3.0	1.0	450	4.0	450 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
19	TRL5015	13mØ	2.0	§S	3.0	1.0	500	4.0	500 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
20	TRL5015S	13mØ	2.0	§S	3.0	1.0	525	4.0	500	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
21	TRL5505	13mØ	2.0	§S	3.0	1.0	550	4.0	550 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
22	TRL6015	13mØ	2.0	§S	3.0	1.0	600	4.0	600 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
23	TRL6505	13mØ	2.0	§S	3.0	1.0	650	4.0	650 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
24	TRL7015	13mØ	2.0	§S	3.0	1.0	700	4.0	700 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
25	TRL7505	13mØ	2.0	§S	3.0	1.0	750	4.0	750 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
26	TRL8015	13mØ	2.0	§S	3.0	1.0	800	4.0	800 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
27	TRM2015	13mØ	2.0	§S	3.0	1.0	200	6.0	200 §	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
28	TRM2255S	13mØ	2.0	§S	3.0	1.0	250	6.0	225	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
29	TRM2505	13mØ	2.0	§S	3.0	1.0	250	6.0	250 §	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
30	TRM2505S	13mØ	2.0	§S	3.0	1.0	275	6.0	250	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
31	TRM2755S	13mØ	2.0	§S	3.0	1.0	300	6.0	275	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
32	TRM3015	13mØ	2.0	§S	3.0	1.0	300	6.0	300 §	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
33	TRM3015S	13mØ	2.0	§S	3.0	1.0	325	6.0	300	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
34	TRM3505	13mØ	2.0	§S	3.0	1.0	350	6.0	350 §	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
35	TRM3515S	13mØ	2.0	§S	3.0	1.0	375	6.0	350	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
36	TRM4015	13mØ	2.0	§S	3.0	1.0	400	6.0	400 §	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
37	TRM4015S	13mØ	2.0	§S	3.0	1.0	425	6.0	400	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
38	TRM4505	13mØ	2.0	§S	3.0	1.0	450	6.0	450 §	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
39	TRM5015	13mØ	2.0	§S	3.0	1.0	500	6.0	500 §	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
40	TRM5015S	13mØ	2.0	§S	3.0	1.0	525	6.0	500	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
41	TRM5505	13mØ	2.0	§S	3.0	1.0	550	6.0	550 §	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
42	TRM6015	13mØ	2.0	§S	3.0	1.0	600	6.0	600 §	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
43	TRM6505	13mØ	2.0	§S	3.0	1.0	650	6.0	650 §	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
44	TRM7015	13mØ	2.0	§S	3.0	1.0	700	6.0	700 §	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
45	TRM7505	13mØ	2.0	§S	3.0	1.0	750	6.0	750 §	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
46	TRM8015	13mØ	2.0	§S	3.0	1.0	800	6.0	800 §	3.0u	10Ø	1.0	10	15 Ø	20M§Δ		400n	DM	MD14	
47	USA55191/33†	13m	2.3	§J	600m		60	5.0	40	1.0uØ	4.0Ø	250m	19 #		50M§Δ		150nØ			
48	USA55191/34†	13m	2.3	§J	600m		120	5.0	80	1.0uØ	10Ø	150m	40 #		50M§Δ	27	300nØ			
49#	2N3869	16m	2.5 Ø	§J	500m	100m	40	4.0	20	1.0uØ	5.0Ø	30m	20	150 #	400M§Δ	1.5			TO5	A
50	2N4296†	16m	2.0 #	§S	1.0	250m	350	4.0	250	100u	10Ø	50m	50	150	20M§Δ		7.0uØ		TO66	CØ
51	2N4297†	16m	2.0 #	§S	1.0	250m	350	4.0	250	100u	10Ø	50m	75	300	20M§Δ		7.0uØ		TO66	CØ
52	2N4298†	16m	2.0 #	§S	1.0	250m	500	4.0	350	100u	10Ø	50m	25	75	20M§Δ		7.0uØ		TO66	CØ
53	2N4299†	16m	2.0 #	§S	1.0	250m	500	4.0	350	100u	10Ø	50m	50	150	20M§Δ		7.0uØ		TO66	CØ
54	2N5421	16m	3.0 Ø	§C	500m	250m	36	4.0	18	1.0uØ	5.0Ø	100m	10	60	300M§	2.0			TO39	AØ
55#	2SC854	16m	2.5 Ø	§J	300m		40	2.0	20	1.0uØ	5.0Ø	100m	10	200	800M§			PE	TO5	
56#	BC140C	16m	3.0 Ø	§J	1.0		80	7.0	40	1.0uØ	1.0Ø	150m	40	120	60M§			PL	TO5	
57#	BC140D	16m	3.0 Ø	§J	1.0		80	7.0	40	1.0uØ	1.0Ø	150m	100	300	60M§			PL	TO5	
58#	BSX45	16m	3.0 Ø	§J	1.0		80	7.0	40	10uØ	1.0Ø	150m	40	120	60M§			PEΔ	TO5	
59#	BSX46	16m	3.0 Ø	§J	1.0		100	7.0	60	10u	1.0Ø	150m	40	120	60M§			PEΔ	TO5	
60#	BF109	17m	2.5		.04	.01	135	2.0	135		10	.01 Δ	20		1.0M			ME	TO5	
61	2N1505	20m	3.0 Ø	§J	500m	200m	50	3.0	40 §	50uØ	28Ø	100m	7.0	100 #	250M*	13		PL	TO5	A
62	2N1506	20m	3.0 Ø	§J	500m	200m	60	4.0	40 §	10uØ	28Ø	100m	10	100 #	250M*	10		PL	TO5	A
63	2N2951	20m	3.0 Ø	§C	250m	50m	60	5.0	60 Ø	100pØ	10Ø	10	20	150	200M§Δ	3.3			TO5	AØ
64	2N3917	20m#	20 Ø	§J	2.0	1.0	80	6.0	40	1.0mØ	4.0Ø	1.0	30	120 #	50M§Δ				TO3	CØ
65	2N3918	20m#	20 Ø	§J	2.0	1.0	80	6.0	40	1.0mØ	4.0Ø	1.0	100	300 #	80M§Δ				TO3	Ø
66	2N4133	20m	3.0 Ø	§J	600m	100m	90	5.0	80	10uØ	5.0Ø	200m	10	80 #	200M§Δ				TO5	A☑
67	2N4427	20m	3.5 Ø	§J	400m	400m	40	2.0	20	20uΔ♦	5.0Ø	100m	10	200	500M§Δ	5.0			TO39	AØ
68	2N5010	20m	2.0 Ø	§S	500m	250m	500	5.0	500 §	6.0uØ	10Ø	25m	30	180	20M§Δ	56			TO5	AØ
69	2N5011	20m	2.0 Ø	§S	500m	250m	600	5.0	600 §	6.0uØ	10Ø	25m	30	180	20M§Δ	60			TO5	AØ
70	2N5012	20m	2.0 Ø	§S	500m	250m	700	5.0	700 §	6.0uØ	10Ø	25m	30	180	20M§Δ	64			TO5	AØ
71	2N5013	20m	2.0 Ø	§S	500m	250m	800	5.0	800 §	12uØ	10Ø	20m	30	180	20M§Δ	80			TO5	AØ
72	2N5014	20m	2.0 Ø	§S	500m	250m	900	5.0	900 §	12uØ	10Ø	20m	30	180	20M§Δ	80			TO5	AØ
73	2N5015	20m	2.0 Ø	§S	500m	250m	1.0k	5.0	1.0k§	12uØ	10Ø	20m	30	180	20M§Δ	90			TO5	AØ
74♦	2N5108	20m	3.5 Ø	§S	400m		55 †	3.0†	55 §	1.0u§					1.2G§Δ				TO39	AØ
75♦	2N5109	20m	3.5 Ø	§S	400m	400m	40 †	3.0†	20	20mΔ	15Ø	50m	40	120	1.2G§Δ				TO39	AØ
76	2N5470	20m	3.5 Ø	§J	200m		55	3.5	55 §	1.0m§						10		PE	X82	A
77	2N5528§	20m§	35 Ø	§J	10	4.0	60	3.0	40	1.0m	5.0Ø	3.0	40	200 #	200M§Δ	3.7			TO59	AØ
78	2N5529§	20m§	35 Ø	§J	10	4.0	60	3.0	40	1.0m	5.0Ø	3.0	40	200 #	200M§Δ	3.7	200n	Δ	TO61	AØ
79	2N5530§	20m	35 Ø	§J	10	4.0	60	3.0	40	1.0m	5.0Ø	3.0	40	200 #	200M§Δ	3.7	200n	Δ	TO61	A
80	2N5532§	20m	35 Ø	§J	10	4.0	90	3.0	75	1.0m	5.0Ø	3.0	30	150 #	200M§Δ	3.7			TO59	AØ
81	2N5533§	20m	35 Ø	§J	10	4.0	90	3.0	75	1.0m	5.0Ø	3.0	30	150 #	200M§Δ	3.7			TO61	AØ
82	2N5534§	20m	35 Ø	§J	10	4.0	90	3.0	75	1.0m	5.0Ø	3.0	30	150 #	200M§Δ	3.7			TO61	A
83	2N5644	20m	3.5 Ø	§S	250m		36	4.0	18	100uØ	5.0Ø	100m	15		400M§Δ				MT72h	R
84▼	2N5697	20m	3.5 Ø	§S	500m		40 †	3.0†	18	1.0mΔ	12Ø	40m	30						TO39	AØ
85#	2SC855	20m	3.0 Ø	§J	400m		40	2.0	20	1.0uØ	5.0Ø	100m	10	200	800M§			PE	TO5	
86	40389	20mØ	3.5	§J	700m		60	5.0	40	250n♦Ø	10Ø	150m	50	250 #	100M§Δ	9.1		DPL	MM9	
87	40409	20mØ	3.0 #	§J	700m	200m		4.0	90 §	1.0u*	4.0Ø	150m	50	250	100M§	9.3		D	MM9	
88	40450†	20m	1.0	§J			30	7.5	25	100nØ	10Ø	10m	100	200	175M§	1.2	50m	PE	R119	
89	40451†	20m	1.0	§J			40	8.0	40	10nØ	10Ø	10m	125	300	175M§	1.0	50m	PEØ	R119	
90	40452	20m	1.0	§J	300m	300mØ		8.0	40	10n	10Ø	10m	75	300	80M§☑	1.0		PE	R119	
91	40453	20m	1.0	§J	200m	25m		7.5	25	100n	10Ø	10m	165	600	80M§☑	1.2		PE	R119	
92	40454	20m	1.0	§J	200m	25m		7.5	25	100n	10Ø	10m	75	300	80M§☑	1.2		PE	R119	
93	40455	20m	1.0	§J	200m	25m		7.0	18	500n	10Ø	10m	165	600	80M§☑	2.0		PE	R119	
94	40456	20m	1.0	§J	200m	25m		7.0	18	500n	10Ø	10m	75	300	80M§☑	2.0		PE	R119	
95	40459†	20m§	1.0	§J	1.0		60	8.0	40	10nØ	10Ø	10m	100	300	200M§	1.0	50n	DPE	R119	
96	40608	20m	3.5 Ø	§J	400m		40	2.0	40 §	100uΔ	15Ø	50m	35	120	700M§Δ	20		PE	TO39	AØ
97	40625	20mØ	3.5	§A	1.0			7.0	45 ☑	250n	10Ø	150m	100	300					X84	A
98	40628	20mØ	3.5	§A	1.0			7.0	55 ☑	250n	10Ø	150m	100	300					X84	A
99	B3747	20m$	1.5 $	§J	800m				25										MT27	
100	B3748	20m$	1.5 $	§J	800m				25										MT27	
101#	BLY38	20m	5.0	§J			36	4.0	18		5.0Ø	500mØ	50 Ø		1.3G§	500m		PL	X63a	R
102	MM1500	20m	3.5	§J	200m		30	4.0	15	100nØ					1.5G§				R70	Ø
103	MM1501	20m	3.5	§J	200m		30	4.0	15	100nØ					1.0G§				R70	Ø
104▼	MM8008	20m	3.5 Ø	§J	100m		35	3.0	30	100uΔ					1.1G§	3.0			TO107	AØ
105▼	MM8009	20m	3.5 Ø	§J	400m		55	3.0	50	100uΔ					1.0G§Δ	5.0			TO39	
106▼	MM8010	20m	3.5 Ø	§J	100m		35	3.0	30	100uΔ					1.1G§	3.0			TO107	AØ
107▼	MM8011	20m	3.5 Ø	§J	100m		35	3.0	30	100uΔ					1.1G§	3.0			TO107	AØ
108	MST10	20m	1.0	§A	350m	100m	100	5.0	100 §	3.0uØ	10Ø	55m	30	55 Ø	40M§	25		DM	TO5	

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AEXMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DESCRIPTION DWG. No.	LEAD CONFIG
1	MST15	20m	1.0	§A	350m	100m	150	5.0	150 §	3.0uØ	10Ø	55m	30	55 Ø	40M§	25		DM	TO5	
2	MST20	20m	1.0	§A	350m	100m	200	5.0	200 §	3.0uØ	10Ø	55m	30	55 Ø	40M§	25		DM	TO5	
3	MST25	20m	1.0	§A	350m	100m	250	5.0	250 §	3.0uØ	10Ø	55m	30	55 Ø	40M§	25		DM	TO5	
4	MST30	20m	1.0	§A	350m	100m	300	5.0	300 §	3.0uØ	10Ø	55m	30	55 Ø	40M§	25		DM	TO5	
5	MST35	20m	1.0	§A	350m	100m	350	5.0	350 §	3.0uØ	10Ø	55m	30	55 Ø	40M§	25		DM	TO5	
6	MST40	20m	1.0	§A	350m	100m	400	5.0	400 §	4.0uØ	10Ø	45m	30	55 Ø	40M§	30		DM	TO5	
7	MST45	20m	1.0	§A	350m	100m	450	5.0	450 §	4.0uØ	10Ø	45m	30	55 Ø	40M§	30		DM	TO5	
8	MST50	20m	1.0	§A	300m	100m	500	5.0	500 §	6.0uØ	10Ø	25m	30	55 Ø	40M§	55		DM	TO5	
9	MST55	20m	1.0	§A	300m	100m	550	5.0	550 §	6.0uØ	10Ø	25m	30	55 Ø	40M§	60		DM	TO5	
10	MST60	20m	1.0	§A	300m	100m	600	5.0	600 §	8.0uØ	10Ø	25m	30	55 Ø	40M§	60		DM	TO5	
11	MST65	20m	1.0	§A	300m	100m	650	5.0	650 §	8.0uØ	10Ø	25m	30	55 Ø	40M§	60		DM	TO5	
12	MST70	20m	1.0	§A	250m	100m	700	5.0	700 §	10uØ	10Ø	25m	30	55 Ø	40M§	65		DM	TO5	
13	MST75	20m	1.0	§A	250m	100m	750	5.0	750 §	10uØ	10Ø	22m	30	55 Ø	40M§	73		DM	TO5	
14	MST80	20m	1.0	§A	200m	50m	800	5.0	800 §	12uØ	10Ø	22m	25	50 Ø	40M§	73		DM	TO5	
15	MST85	20m	1.0	§A	200m	50m	850	5.0	850 §	12uØ	10Ø	20m	25	50 Ø	40M§	80		DM	TO5	
16	MST90	20m	1.0	§A	200m	50m	900	5.0	900 §	15uØ	10Ø	20m	25	50 Ø	40M§	80		DM	TO5	
17	MST95	20m	1.0	§A	150m	50m	950	5.0	950 §	15uØ	10Ø	15m	25	50 Ø	40M§	100		DM	TO5	
18	MST100	20m$	2.0 Ø	§J			1.0k	5.0	1.0k§	12uØ	10Ø	20m	30		40k§	90		D	TO5	
19	PT1515	20m	3.0 Ø	§J	500m	200m	80	4.0	80 §	10uØ	28Ø	100m	15	100 #				PL	TO5	AØ
20	PT1559	20m	3.5 Ø	§J	500m	200m	80	5.0	50	50nØ	28Ø	100m	10 #		140M§Δ	4.0		PL	TO5	AØ
21	2N497	22m	4.0 Ø	§J			60	8.0	60	10uØ	10Ø	200m	12	36		25		ME	TO5	AØ
22	2N498	22m	4.0 Ø	§J			100	8.0	100	10uØ	10Ø	200m	12	36		25		ME	TO5	AØ
23	2N656	22m	4.0 Ø	§J			60	8.0	60	10uØ	10Ø	200m	30	90		25		ME	TO5	AØ
24	2N657	22m	4.0 Ø	§J			100	8.0	100	10uØ	10Ø	200m	30	90		25		ME	TO5	AØ
25	2N3118	22m	1.0	§S	500m		85	4.0	60	100nØ	28Ø	25m	50	275 #	250M§Δ				TO5	AØ
26	2N3119	22m	1.0	§S	500m		100	4.0	80	50nØ	10Ø	10m	40		250M§Δ	5.0	20uØ		TO5	AØ
27	2N3734†	22m	1.0	§S	1.5		50	5.0	30	200nØ#	1.5Ø	1.0	30	120	300M§Δ	20	40nØ		TO5	AØ
28	2N3735†	22m	1.0	§S	1.5		75	5.0	50	200nØ#	1.5Ø	1.0	20	80	250M§Δ	20	40nØ		TO5	AØ
29#	2S017	22m	2.0	§A	400m		60	8.0	60	100u	10Ø	200m	12	36	4.7M§	15		D	TO5	
30#	2S018	22m	2.0	§A	400m		100	8.0	100	100u	10Ø	200m	12	36	4.7M§	15		D	TO5	
31#	2S019	22m	2.0	§A	400m		60	8.0	60	100u	10Ø	200m	30	90	4.7M§	10		D	TO5	
32#	2S020	22m	2.0	§A	400m		100	8.0	100	100u	10Ø	200m	30	90	4.7M§	10		D	TO5	
33	40346V1	22m	4.0	§J	1.0	500m			175 §	5.0uΔØ	10Ø	10m	25		10M§Δ	50		DΔ	MM9	AØ
34	40412V1	22m	4.0	§J	1.0	500m			250 §	1.0m*Ø	20Ø	30m	40		10M§Δ			DΔ	MM9	AØ
35	A245	22m	4.0 Ø	§J			40	4.0	25		5.0Ø	500m	10		400M§			PE	MT72d	R
36#	BF179A	22m	1.7 Ø	§J	50m	10m		5.0	160 Ø						120M§			DPL	TO5	AØ
37#	BF179B	22m	1.7 Ø	§J	50m	10m		5.0	220 Ø						120M§			DPL	TO5	AØ
38#	BF179C	22m	1.7 Ø	§J	50m	10m		5.0	250 Ø						120M§			DPL	TO5	AØ
39	PT1558	22m	4.0 Ø	§J	500m	200m	80	5.0	45	50nØ	28Ø	100m	10	100 #	250M*	4.0		PL	TO5	AØ
40	2N1506A	23m	3.5 Ø	§J	500m	200m	80	5.0	80 §	50nØ	28Ø	100m	10	100 #	250M*	4.0		PL	TO5	A
41	2N3309	23m	3.5 Ø	§C	500m	100m	50	3.0	50 Ø	100u§	2.0Ø	75	5.0	100	300M§Δ	2.0			TO39	AØ
42	2N3659	23m	4.0 Ø	§S	500m	250m	220	5.0	170	10nØ	50Ø	10m	20		50M§Δ				TO5	AØ
43#	2SC844	23m	3.5 Ø	§J	400m		40	2.0	17	1.0uØ	5.0Ø	100m	10	200	800M§			PL	TO5	Ø
44#	2SC845	23m	3.5 Ø	§J	400m		55	3.5	30	1.0uØ	5.0Ø	100m	10	200	800M§			PL	TO5	Ø
45#	2SC777	25m	2.0	§J	1.0		75	4.0	75 §	10uØ	10Ø	100m	5.0		150M§			PE	MD32	Ø
46	40347V1	25mØ	4.4	§J	1.5	500m	60	7.0	40	1.0u*	4.0Ø	450m	20	80		2.2		D	MM9	AØ
47	40348V1	25mØ	4.4	§J	1.5	500m	90	7.0	65	1.0u*	4.0Ø	300m	30	100		2.5		D	MM9	AØ
48	40349V1	25mØ	4.4	§J	1.5	500m	160	7.0	140	1.0u*	4.0Ø	150m	25	100		3.3		D	MM9	AØ
49♦	A778	25m	1.7 Ø	§J	50m		160	5.0	115	4.0m*					120M§			PL	TO5	AØ
50♦	A779	25m	1.7 Ø	§J	50m		250	5.0	115	4.0m*					120M§			PL	TO5	AØ
51▼#	BFX49	25m	2.5	§J	250m	700m#	65	4.0	36		5.0Ø	100m	10	25 Ø	1.3G§	5.0		PL	MT72j	R
52#	BFY99	25m	4.4 Ø	§J	1.0		65	4.0	40	100uΔ					500M§			PL	TO5	
53#	V643	25mØ	3.7 Ø	§J	400m#		40	3.0	20	100uØ	10Ø	70m	20 #	200 #	2.0G§Δ			PE†	MT72f	S
54	2N5092	26m$	2.0 Ø	§A	1.0	500m	400	6.0	350	500nØ	10Ø	100m	15	250	50M§Δ	20			TO5	AØ
55	2N5095	26m$	2.0 Ø	§A	1.0	500m	500	6.0	400	500nØ	10Ø	100m	15	250	50M§Δ	20			TO5	AØ
56	2N5097	26m$	2.0 Ø	§A	1.0	500m	600	6.0	450	500nØ	10Ø	100m	15	250	50M§Δ	20			TO5	AØ
57	2N5098	26m$	2.0 Ø	§A	1.0	500m	700	6.0	500	500nØ	10Ø	100m	15	250	50M§Δ	20			TO5	AØ
58	2N5099	26m$	2.0 Ø	§A	1.0	500m	800	6.0	550	500nØ	10Ø	100m	15	250	50M§Δ	20			TO5	AØ
59	MST5404	26m	1.0	§A	400m	200m	650	5.0	540	10u	10Ø	100m	20		50M§Δ	60		DM	TO5	
60	MST6604	26m	1.0	§A	400m	200m	800	5.0	660	10u	10Ø	100m	20		50M§Δ	60		DM	TO5	
61	PT1544	26m	4.0 Ø	§J	500m	200m	50	4.0	50 §	100uØ					250M*			PL	TO5	AØ
62	PT1545	26m	4.0 Ø	§J	500m	200m	50	4.0	50 §	100uØ					250M*			PL	TO5	AØ
63	TRS1004	26m	1.0	§J	400m	50m	100	6.0	100 §	3.0uØ	4.0Ø	50m	30 Ø		50k§	30			TO5	
64	TRS1204	26m	1.0	§J	400m	50m	120	6.0	120 §	3.0uØ	4.0Ø	50m	30 Ø		50k§	30			TO5	
65	TRS1404	26m	1.0	§J	400m	50m	140	6.0	140 §	3.0uØ	4.0Ø	50m	30 Ø		50k§	30			TO5	
66	TRS1604	26m	1.0	§J	400m	50m	160	6.0	160 §	3.0uØ	4.0Ø	50m	30 Ø		50k§	30			TO5	
67	TRS1804	26m	1.0	§J	400m	50m	180	6.0	180 §	3.0uØ	4.0Ø	50m	30 Ø		50k§	30			TO5	
68	TRS2004	26m	1.0	§J	400m	50m	200	6.0	200 §	2.0uØ	4.0Ø	50m	20 Ø		50k§	30			TO5	
69	TRS2254	26m	1.0	§J	400m	50m	225	6.0	225 §	3.0uØ	4.0Ø	50m	22 Ø		50k§	30			TO5	
70	TRS2504	26m	1.0	§J	400m	50m	250	6.0	250 §	2.0uØ	4.0Ø	50m	20 Ø		50k§	30			TO5	
71	TRS2754	26m	1.0	§J	400m	50m	275	6.0	275 §	3.0uØ	4.0Ø	50m	22 Ø		50k§	30			TO5	
72	TRS2804S	26m	1.0	§A	400m		340	5.0	280	2.0uØ	8.0Ø	200m	25	45 Ø	50M§Δ	30		DM	TO5	AØ
73	TRS3014	26m					300	6.0	300 §	2.0uØ	4.0Ø	50m	30 #		50M§	30			TO5	A
74	TRS3204S	26m			400m		385	5.0	320	2.0uØ	8.0Ø	200m	25	45 Ø	50M§Δ	30		DM	TO5	AØ
75	TRS3254	26m	1.0	§J	400m	50m	325	6.0	325 §	3.0uØ	4.0Ø	50m	22 Ø		50k§	30			TO5	
76	TRS3504	26m					350	6.0	350 §	2.0uØ	4.0Ø	50m	20 #		50M§	38			TO5	A
77	TRS3604S	26m			400m		420	5.0	360	2.0uØ	8.0Ø	200m	25	45 Ø	50M§Δ	30		DM	TO5	AØ
78	TRS3754	26m	1.0	§J	400m	50m	375	6.0	375 §	3.0uØ	4.0Ø	50m	22 Ø		50k§	30			TO5	
79	TRS4004	26m					400	6.0	400 §	2.0uØ	4.0Ø	50m	30 #	65 Ø	50M§	30			TO5	A
80	TRS4014	26m	1.0	§J	400m	50m	400	6.0	400 §	2.0uØ	4.0Ø	50m	30 Ø		50k§	30			TO5	
81	TRS4014S	26m			400m		480	5.0	400	10uØ	10Ø	100m	20	30 Ø	50M§Δ	60		DM	TO5	AØ
82	TRS4254	26m	1.0	§J	400m	50m	425	6.0	425 §	3.0uØ	4.0Ø	50m	22 Ø		50k§	30			TO5	
83	TRS4404S	26m			400m		530	5.0	440	10uØ	10Ø	100m	20	30 Ø	50M§Δ	60		DM	TO5	AØ
84	TRS4504	26m					450	6.0	450 §	2.0uØ	4.0Ø	50m	30 #		50M§	30			TO5	A
85	TRS4754	26m	1.0	§J	400m	50m	475	6.0	475 §	2.0uØ	4.0Ø	50m	22 Ø		50k§	30			TO5	
86	TRS4804S	26m			400m		580	5.0	480	10uØ	10Ø	100m	20	30 Ø	50M§Δ	60		DM	TO5	AØ
87	TRS5014	26m	1.0	§A			500	6.0	500 §	2.0uØ	5.0Ø	25m	30 #	65 Ø	50M§	60			TO5	A
88	TRS5204S	26m	1.0	§A	400m		625	5.0	520	10uØ	10Ø	100m	20	30 Ø	50M§Δ	60		DM	TO5	AØ
89	TRS5254	26m	1.0	§J	400m	50m	525	6.0	525 §	2.0uØ	5.0Ø	25m	22 Ø		50k§	72			TO5	
90	TRS5404S	26m	1.0	§A	400m		650	5.0	540	10uØ	10Ø	100m	20	30 Ø	50M§Δ	60		DM	TO5	AØ
91	TRS5504	26m	1.0	§A			550	6.0	550 §	10uØ	5.0Ø	25m	20 #	60 Ø	50M§	76			TO5	A
92	TRS5754	26m	1.0	§J	400m	50m	575	6.0	575 §	2.0uØ	5.0Ø	25m	22 Ø		50k§	72			TO5	
93	TRS5804S	26m	1.0	§A	400m		700	5.0	580	10uØ	10Ø	100m	20	3.0 Ø	50M§Δ	60		DM	TO5	AØ
94	TRS6014	26m	1.0	§A			600	6.0	600 §	10uØ	5.0Ø	25m	30 #	65 Ø	50M§	60			TO5	A
95	TRS6204S	26m	1.0	§A	400m		750	5.0	620	10uØ	10Ø	100m	20	30 Ø	50M§Δ	60		DM	TO5	AØ
96	TRS6504	26m	1.0	§A			650	6.0	650 §	10uØ	5.0Ø	25m	25 #		50M§	60			TO5	AØ
97	TRS6604S	26m	1.0	§A	400m		800	5.0	660	10uØ	10Ø	100m	20	30 Ø	50M§Δ	60		DM	TO5	AØ
98	TRS7014	26m	1.0	§A			700	6.0	700 §	10uØ	5.0Ø	25m	25 #		50M§	60			TO5	AØ
99	TRS7014S	26m	1.0	§A	400m		850	5.0	700	10uØ	10Ø	100m	20	30 Ø	50M§Δ	60			TO5	AØ
100	TRS7504	26m	1.0	§A			750	6.0	750 §	10uØ	5.0Ø	25m	25 #		50M§	60			TO5	AØ
101	TRS8014	26m	1.0	§A			800		800 §	10uØ	5.0Ø	25m	25 #		50M§	60			TO5	AØ
102#	2SC555	27m	4.0 Ø	§J	400m		55	3.5	30	20uØ	3.0Ø	50m	10		800M§	10		PE	TO39	
103	2N497A	28m	1.0	§J	500m	250m	60	8.0	60	10uØ	10Ø	200m	12	36 #			10u		TO5	AØ
104	2N498A	28m	1.0	§J	500m	250m	100	8.0	100	10uØ	10Ø	200m	12	36 #			10u		TO5	AØ
105	2N656A	28m	1.0	§J	500m	250m	60	8.0	60	10uØ	10Ø	200m	30	90 #			10u		TO5	AØ
106	2N657A	28m	1.0	§J	500m	250m	100	8.0	100	10uØ	10Ø	200m	30	90 #			10u		TO5	AØ
107	2N1479	28m	5.0 Ø	§C	1.5	1.0	60	12	40	10uØ	4.0Ø	200m	20	60	1.5M†	7.0	1.0u	ME△	TO5	A
108	JAN2N1479	28m	1.0	§J	1.5	1.0	60	12	40	5.0uØ	4.0Ø	200m	20	60	800k†Δ	3.8			TO5	AØ
109	2N1480	28m	5.0 Ø	§C	1.5	1.0	100	12	55	10uØ	4.0Ø	200m	20	60	1.5M†	7.0	1.0u	ME△	TO5	A
110	JAN2N1480	28m	1.0	§J	1.5	1.0	100	12	55	5.0uØ	4.0Ø	200m	20	60	800k†Δ	3.8			TO5	AØ

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	2N1481	28m	5.0 Ø	§C	1.5	1.0	60	12	40	10uØ	4.0Ø	200m	35	100	1.5Mt	7.0	1.0u	ME△	TO5	A
2	JAN2N1481	28m	1.0	§J	1.5	1.0	60	12	40	5.0uØ	4.0Ø	200m	35	100	800kt△	3.8			TO5	AØ
3	2N1482	28m	5.0 Ø	§C	1.5	1.0	100	12	55	10uØ	4.0Ø	200m	35	100	1.5Mt	7.0	1.0u	ME△	TO5	A
4	JAN2N1482	28m	1.0	§J	1.5	1.0	100	12	55	5.0uØ	4.0Ø	200m	35	100	800kt△	3.8			TO5	AØ
5	2N1613A	28m	1.0 Ø	§J	500m		75	7.0	50 §	2.0nØ	10Ø	150m	40	120 #	60M§△				TO5	AØ
6	2N1613B	28m	1.0	§J			120	7.0	50	2.0nØ	10Ø	100u	20		60M§△	1.3		△	TO5	AØ
7	2N1711A	28m	1.0 Ø	§J	1.0		75	7.0	50 §	2.0nØ	10Ø	150m	100	300 #	70M§△			Ø	TO5	AØ
8	2N1711B	28m	1.0	§J	2.0		120	7.0	50	2.0nØ	10Ø	100u	20		70M§△	1.3			TO5	AØ
9	2N2017	28m	1.0	§J	1.0		60	8.0	60	10uØ	10Ø	200m	50	200		10			TO5	AØ
10	2N2102A	28m	1.0	§J	1.0		120	7.0	65	2.0nØ	10Ø	150m	40	120	60M§△	2.0		△Ø	TO5	AØ
11	2N2270	28m	1.0	§J	1.0		60	7.0	45	50n	10Ø	150m	50	200 #	100M§△	6.0		△Ø	TO5	AØ
12	2N2594	28m	1.0		1.0		80	7.0	80	100nØ	5.0Ø	10	20		40M§△	5.0		△	TO5	AØ
13	2N3053	28m	5.0 Ø	§S	700m		60	5.0	40		2.5Ø	150m	25	250	100M§△	9.3			TO5	AØ
14	2N3252†	28m	1.0	§J	1.0		60	5.0	30	50nØ	1.0Ø	500m	30	90 #	200M§△		30nØ☑		TO5	AØ
15	2N3253†	28m	1.0	§J	1.0		75	5.0	40	50nØ	1.0Ø	375m	25	75 #	175M§△		35nØ☑		TO5	AØ
16	JAN2N3253†	28m	1.0	§S	1.0		75	5.0	40	500nØ	1.0Ø	500m	25	75 #	175M§△	1.2	35n	E	TO5	AØ
17	JAN2N3444†	28m	1.0	§S	1.0		80	5.0	50	500nØ	1.0Ø	500m	20	60	175M§△	1.2	35n	E	TO5	AØ
18	2N3464	28m	5.0 Ø	§J	5.0	2.0	60	5.0	40	100u	4.0Ø	200m	35	100 #	30M§△				TO5	AØ
19	JAN2N3498†	28m	1.0	§J	500m		100	6.0	100	50nØ	10Ø	150m	40	120 #	150M§△		900nØ	Ø	TO5	AØ
20	JAN2N3499†	28m	1.0	§J	500m		100	6.0	100	50nØ	10Ø	150m	100	300 #	150M§△		900nØ	Ø	TO5	AØ
21	JAN2N3500†	28m	1.0	§J	300m		150	6.0	150	50nØ	10Ø	150m	40	120 #	150M§△		900nØ	Ø	TO5	AØ
22	JAN2N3501	28m	1.0	§J	300m		150	6.0	150	50nØ	10Ø	150m	100	300 #	150M§△		900nØ	Ø	TO5	AØ
23	JAN2N3506†	28m	1.0	§A	3.0		60	5.0	40 *	1.0u#	2.0Ø	1.5	40	200 #	60M§△		45nØ☑		TO5	AØ
24	JAN2N3507†	28m	1.0	§A	3.0		80	5.0	50 *	1.0u#	2.0Ø	1.5	30	150 #	60M§△		45nØ☑		TO5	AØ
25	2N3665	28m	5.0 Ø	§S	1.0		120	8.0	80	50nØ	10Ø	150m	40	120	60M§△			△	TO5	AØ
26	2N3666	28m	5.0 Ø	§S	1.0		120	8.0	80	50nØ	10Ø	150m	100	300	60M§△			△	TO5	AØ
27	2N3742	28m	1.0	§S	50m		300	7.0	300	200nØ	10Ø	30m	20	200	30M§△	165			TO5	AØ
28	JAN2N3742	28m	1.0	§J	50m		300	7.0	300	500nØ	10Ø	30m	30	120 #	40M§△				TO39	AØ
29	JAN2N3743	28m	1.0	§J	50m		300	5.0	300	500nØ	10Ø	30m	50	200 #	40M§△				TO39	AØ
30	2N3866	28m	5.0	§S	400m		55	3.5	30	100u#	5.0Ø	50m	10	200	500M§△				TO39	AØ
31	JAN2N3866	28m	1.0	§J	400m		60	3.5	30	20u△	5.0Ø	50m	15	200	500k	10			TO39	AØ
32	2N3945	28m	5.0 Ø	§S	1.0		70	8.0	50		10Ø	150m	40	150	60M§△	3.3			TO5	AØ
33	2N3948	28m	5.0 Ø	§S	400m		36	3.5	20	100nØ	5.0Ø	50m	15		700M§△				TO39	A
34	2N4429	28m	5.0 Ø	§J	430m	150	55	3.5	35	1.0m#	5.0Ø	500m	20	200	700M§				MT59g	V
35	2N4924	28m	1.0	§S	200m		100	5.0	100	100nØ	10Ø	150m	40	200 #	100M§△				TO39	AØ
36	2N4925	28m	1.0	§S	200m		150	5.0	150	100nØ	10Ø	150m	40	200 #	100M§△				TO39	AØ
37	JAN2N4926	28m	1.0	§J	50m		200	7.0	200	500nØ	10Ø	30m	30	120 #	40M§△				TO39	AØ
38	JAN2N4927	28m	1.0	§J	50m		250	7.0	250	500nØ	10Ø	30m	30	120 #	40M§△				TO39	AØ
39	JAN2N4930	28m	1.0	§J	50m		200	5.0	200	500nØ	10Ø	30m	50	200 #	40M§△				TO39	AØ
40	JAN2N4931	28m	1.0	§J	50m		250	5.0	250	500nØ	10Ø	30m	50	200 #	40M§△				TO39	AØ
41	2N4976	28m	5.0 Ø	§J	400m	150m	55	3.5	30	5.0m#	5.0Ø	50m	20	250	1.0M§△				MT66	
42	2N5279	28m	1.0 Ø	§S	1.0	500m	400	7.0	300 ☑	20uØ	10Ø	20m	40	150	15M§△				TO5	AØ
43	2N5422	28m	5.0 Ø	§C	1.0	500m	36	4.0	18	100uØ	5.0Ø	500m	10	60	300M§	1.0			TO39	AØ
44♦	2N5481	28m	5.0 Ø	§S	200m	50m	50 †	3.0†	30	2.0m	5.0Ø	50m	20	250					MT74	R
45	2N5527§	28m	5.0 Ø	§J	5.0	1.0	60	3.0	40	1.0m	5.0Ø	3.0	40	200 #	200M§△	3.7			R81j	AØ
46	2N5531§	28m	5.0 Ø	§J	5.0	1.0	90	3.0	75	1.0m	5.0Ø	3.0	30	150 #	200M§△	3.7			R81j	AØ
47	2N5535§	28m	50 Ø	§J	20	8.0	60	3.0	50	1.0m	5.0Ø	10	30	150 #	150M§△	6.2			TO61	AØ
48	2N5536§	28m	50 Ø	§J	20	8.0	60	3.0	50	1.0m	5.0Ø	10	30	150 #	150M§△	6.2			TO61	A
49	2N5537§	28m	50 Ø	§J	20	8.0	90	3.0	75	1.0m	5.0Ø	10	30	150 #		6.2			TO61	AØ
50	2N5538§	28m	50 Ø	§J	20	8.0	90	3.0	75	1.0m	5.0Ø	10	30	150 #		6.2			TO61	A
51▼	2N5687	28m	5.0 Ø	§S	500m		40 †	3.0†	20	1.0mA	12Ø	50m	15						TO39	AØ
52▼	2N5698	28m	5.0 Ø	§S	500m		40 †	3.0†	18	1.0mA	12Ø	40m	30						TO131	R
53#	2SC700	28m	5.0 Ø	§J	750m		60	3.0	40	100uØ	10Ø	100m	5.0		300M§			PE	TO39	AØ
54#	2SC890	28mØ	4.3 Ø	§J	400m		40	3.0	20	1.0uØ	10Ø	100m	20 #		600M§△			PE	TO39	A
55#	2SC908	28m	5.0 Ø	§J	500m		40	3.0	40 §	50uØ	10Ø	100m	5.0		800M§			PE	TO5	A
56	40082	28m	5.0 Ø	§J	1.5			2.5		10u					27M*			DPL	TO39	AØ
57	40309	28m	1.0	§J	700m	200m		2.5	18	250nØ	4.0Ø	50m	70	350	100M§			DPL	TO5	AØ
58	40311	28m	1.0	§J	700m	200m		2.5	30	250nØ	4.0Ø	50m	70	350	100M§			DPL	TO5	AØ
59	40314	28m	1.0	§J	700m	200m		2.5	40	250nØ	4.0Ø	50m	70	350	100M§			DPL	TO5	AØ
60	40315	28m	1.0	§J	700m	200m		2.5	35	250nØ	4.0Ø	50m	70	350	100M§			DPL	TO5	AØ
61	40317	28m	1.0	§J	700m	200m		2.5	40	250nØ	4.0Ø	10m	40	200				DPL	TO5	AØ
62	40320	28m	1.0	§J	700m	200m		2.5	40	250nØ	4.0Ø	10m	40	200				DPL	TO5	AØ
63	40323	28m	1.0	§J	700m	200m		2.5	18	250nØ	4.0Ø	50m	70	350	100M§			DPL	TO5	AØ
64	40360	28m	5.0 Ø	§J	700m	200m		4.0	70	10mA	4.0Ø	10m	40	200	100M§			DPL	TO5	AØ
65	40361	28m	5.0 Ø	§J	700m	200m		4.0	70	10mA	4.0Ø	50m	70	350	100M§			DPL	TO5	AØ
66	40366	28m	1.0	§J	1.0		120	7.0	65	2.0nØ	10Ø	150m	40	120 #				DA	TO5	AØ
67	40367	28m	1.0	§J	1.5	1.0	100	12	55	4.0nØ	4.0Ø	200m	35	100		7.0		DA	TO5	AØ
68	40385	28m	1.0	§J	1.0		450	7.0	350	20uA	10Ø	20m	40	160		10		DA	TO5	AØ
69	40407	28m	1.0	§J	700m	200m		4.0	50	250n	10Ø	1.0m	40	200	100M§			D	TO5	AØ
70	40408	28m	1.0	§J	700m	200m		4.0	90	1.0uA	4.0Ø	10m	40	200	100M§	9.3		D	TO5	AØ
71	40578	28m	5.0 Ø	§J	400m		55	3.5		100uA									TO39	
72	40581	28m	5.0 Ø	§J	1.5			2.5		10u					27M*			DPL	TO39	AØ
73	40611	28m	1.0	§A	700m	200m		2.5	25 ☑	500n	4.0Ø	50m	70	500				D	TO5	AØ
74	40616	28m	1.0	§A	700m	200m		2.5	32 ☑	500n	4.0Ø	50m	70	500				D	TO5	AØ
75	40635	28m	1.0	§A	700m	200m		7.0		10u*	4.0Ø	150m	50	250				PL	TO5	AØ
76	A209	28m	5.0 Ø	§J	500m#		40		25	5.0uAØ	15Ø	50m	25	200	1.4G§			PE	MT71	R
77	A238	28m	5.0 Ø	§J	800m	2.0 Ø	36	4.0	18		5.0Ø	250m	10	70 Ø	1.0G§	2.0		PL	MT59h	R
78#	BC140†	28m	3.7 Ø	§J	1.0	100m	80	7.0	40	100u§	1.0Ø	100m	63	250 *	50M§△		250nØ	E	TO39	AØ
79#	BC141†	28m	3.7 Ø	§J	1.0	100m	100	7.0	60	100u§	1.0Ø	100m	63	250 *	50M§△		250nØ	E	TO39	AØ
80#	BFX33	28m$	2.9 Ø	§J	400m		55	3.5	30	100nØ	15	80m	25		800M§			PE	TP39	AØ
81#	BFX55	28m*	3.7 Ø	§J	400m	100m	60	3.5	40	50nØ	2.0Ø	50m	40	160	500M§	8.0		PE	TO39	A
82#	BFY44	28m	5.0 Ø	§J	1.0	200m	80	4.0	60	50nØ	5.0	500mA	20 Ø		210M§	200m		PE	TO39	
83#	BFY70	28m	5.0 Ø	§J	1.0	200m	60	4.0	40	50nØ	5.0	500mA	5.0		210M§	200m		PE	TO39	
84#	BSW29	28m	1.0	§J	1.0		40	4.0	30	700nØ	2.0Ø	500m	35		200M§	350m	40nØ	PE	TO5	AØ
85#	BSX62†	28m*	4.4 Ø	§J	2.0		60	5.0	40		2.0Ø	1.0	30	90	30M§		300nØ	PE	TO39	A
86#	BSX62B	28m	4.3 Ø	§J	2.0		60	5.0	40		2.0Ø	1.0	30	90	50M§			PEA	TO5	
87#	BSX62C	28m	4.3 Ø	§J	2.0		60	5.0	40		2.0	1.0	50	150	50M§			PEA	TO5	
88#	BSX62D	28m	4.3 Ø	§J	2.0		60	5.0	40		2.0	1.0	100	300	50M§			PEA	TO5	
89#	BSX63†	28m*	4.4 Ø	§J	2.0		80	5.0	60		2.0Ø	1.0	30	90	30M§		300nØ	PE	TO39	A
90#	BSX63B	28m	4.3 Ø	§J	2.0		80	5.0	60		2.0Ø	1.0	30	90	50M§			△	TO5	
91#	BSX63C	28m	4.3 Ø	§J	2.0		80	5.0	60		2.0	1.0	50	150	50M§			PEA	TO5	
92	MM2261†	28m	1.0	§J	1.0		60	5.0	50	500nØ	10Ø	50m	40	200	100M§△	3.3	1.0u	AN	TO5	AØ
93	MM2262†	28m	1.0	§J	1.0		100	5.0	100	500nØ	10Ø	50m	60	300	100M§△	2.0	1.0u	AN	TO5	AØ
94	MM2263†	28m	1.0	§J	1.0		150	5.0	150	500nØ	10Ø	50m	40	200	100M§△	1.3	1.0u	AN	TO5	AØ
95	MM3004	28m	1.1	§J	1.5				25	100n	1.0Ø	150m	70		50M§△	500m▼		AN	TO39	AØ
96	MM3724†	28m	1.0	§J	1.5			6.0	30	500nØ	2.0Ø	500m	25	150	200M§△	900m		AN	TO5	AØ
97	MM3725†	28m	1.0	§J	1.5			6.0	50	500nØ	2.0Ø	500m	25	150	200M§△	900m		AN	TO5	AØ
98▼	MM4429	28m	5.0 Ø	§J	250m		55	3.5	35	100u	15Ø	50m	20	200	600M§△				MT75	R
99▼	MM4430	28m	5.0 Ø	§J	250m		55	3.5	35	100u	15Ø	50m	20	200	600M§△				MT75	R
100	PT3500	28m	5.0 Ø	§J	500m		60	3.0	40	100uØ	20Ø	50mØ	15	100	600M§			PL	TO39	A
101	S704	28m	5.0	§J	400m		55	3.5	30	100u#	5.0Ø	50m	10	200	1.0G§△			EPL	TO39	
102	TRS140HP	28m	5.0 Ø	§C			140	6.0	140 §	10u	4.0Ø	25m	30	65 Ø	50M§				TO5	
103	TRS160HP	28m	5.0 Ø	§C			160	6.0	160 §	10u	4.0Ø	25m	30	65 Ø	50M§				TO5	
104	TRS180HP	28m	5.0 Ø	§C			180	6.0	180 §	10u	4.0Ø	25m	30	65 Ø	50M§				TO5	
105	TRS200HP	28m	5.0 Ø	§C			200	6.0	200 §	10u	4.0Ø	25m	20	90	50M§				TO5	
106	TRS225HP	28m	5.0 Ø	§C			225	6.0	225 §	10u	4.0Ø	25m	22	85	50M§				TO5	
107	TRS250HP	28m	5.0 Ø	§C			250	6.0	250 §	10u	4.0Ø	25m	20	90	50M§				TO5	
108	TRS275HP	28m	5.0 Ø	§C			275	6.0	275 §	10u	4.0Ø	25m	22	85	50M§				TO5	
109	TRS301HP	28m	5.0 Ø	§C			300	6.0	300 §	10u	4.0Ø	25m	30	65 Ø	50M§				TO5	
110	TRS325HP	28m	5.0 Ø	§C			325	6.0	325 §	10u	4.0Ø	25m	22	85	50M§				TO5	

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AE XM P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	LC EO AD DE
1	TRS350HP	28m	5.0 Ø	§C			350	6.0	350 §	10u	4.0Ø	25m	20	90	50M§				TO5	
2	TRS375HP	28m	5.0 Ø	§C			375	6.0	375 §	10u	4.0Ø	25m	22	85	50M§				TO5	
3	TRS401HP	28m	5.0 Ø	§C			400	6.0	400 §	10u	4.0Ø	25m	30	65 Ø	50M§				TO5	
4	TRS425HP	28m	5.0 Ø	§C			425	6.0	425 §	10u	4.0Ø	25m	22	85	50M§				TO5	
5	VX3866	28m	5.0 Ø	§J	400m		55	3.5	30	20u△♦					800M§	10		PE		
6#	ZT1479	28m	5.0 Ø♦	§C	1.5	1.0	60	12	60 #	10uØ	4.0Ø	200	20	60		7.0	1.0u	D	TO5	
7#	ZT1480	28m	5.0 Ø♦	§C	1.5	1.0	100	12	100 #	10uØ	4.0Ø	200	20	60		7.0	1.0u	D	TO5	
8#	ZT1481	28m	5.0 Ø♦	§C	1.5	1.0	60	12	60 #	10uØ	4.0Ø	200	35	100		7.0	1.0u	D	TO5	
9#	ZT1482	28m	5.0 Ø♦	§C	1.5	1.0	100	12	100 #	10uØ	4.0Ø	200	35	100		7.0	1.0u	D	TO5	
10#	ZT1700	28m	5.0 Ø♦	§C	1.0	750m	60	6.0	40	75uØ	4.0Ø	100m	20	80	1.2Mt	10	1.2uØ	D	TO5	Ø
11#	ZT2270	28m	1.0 ♦	§J	1.0		60	7.0	45	100n	10Ø	150m	50	200 #	60M§△			PLØ	TO5	Ø
12	2N1700	29m	5.0 Ø	§J	1.0	750m	60	6.0	40 ☑	750 Ø	4.0Ø	100m	20	80	400kt△	10		△	TO5	AØ
13	2N4926	29m	5.0 Ø	§S	50m		200	7.0	200	100nØ	10Ø	30m	20	200 #	300k§☑				TO39	AØ
14	2N4927	29m	5.0 Ø	§S	50m		250	7.0	250	100nØ	10Ø	30m	20	200 #	300k§☑				TO39	AØ
15	40539	29m	1.0	§J	700m			5.0	55 §	10u*	4.0Ø	500m	15	90	100M§	4.0		DPL	TO5	AØ
16	2N1067†	33m	5.0 Ø	§A	500m	200m	60	12	30	500u	4.0Ø	200m	15	75	1.5Mt	10	1.2u	D	TO8	AØ
17	2N5058	33m	1.0	§S	150m		300	7.0	300	50nØ	25Ø	30m	35	150 #	30M§△				TO5	AØ
18	2N5059	33m	1.0	§S	150m		250	6.0	250	50nØ	25Ø	30m	30	150 #	30M§△				TO5	AØ
19	2N5413†	33m	1.0	§S	2.0		60	6.0	40	1.0uØ	2.0Ø	2.0	25	100 #	250M§△		37m		TO39	AØ
20	2N5414†	33m	1.0	§S	2.0		80	6.0	50	1.0uØ	2.0Ø	2.0	20	100 #	250M§△		37n		TO39	AØ
21▼	2N5715	33m	6.0 Ø	§S	200m	80m	50 †	3.5†	30	500uØ	5.0Ø	50m	20	200	3.5G§△					
22#	2SC803†	33m	5.0 Ø	§J	1.5		60	4.0	35	1.0uØ	4.0Ø	400m	20	300	90M§		80n	PL	TO5	Ø
23	40250V1	33m	5.8	§J	4.0	2.0	50	5.0	40	1.0mØ	4.0Ø	1.5	25	100				D	MD30	
24	40321	33m	1.0	§J	1.0	500m		5.0	300 §	100uØ	10Ø	20m	25	200				DPL	TO5	AØ
25	40326	33m	1.0	§J	700m	20		2.5		250nØ	4.0Ø	10m	40	200				DPL	TO5	AØ
26	40327	33m	1.0	§J	1.0	500m		5.0		100u†	10Ø	20m	40	250				D	TO5	AØ
27	40372	33mØ	5.8	§J	4.0	2.0	90	7.0	55		4.0Ø	500m	25	100	800 §△	2.0		△	MD30	
28	40373	33mØ	5.8	§J	3.0	2.0	160	7.0	140		4.0Ø	500m	20	80		2.0		D△	MD30	
29	40374	33m	5.8	§J	2.0	1.0	250	6.0	175	10m△Ø	10Ø	100m	40		15M§△				MD30	
30	40375	33mØ	5.8	§J	7.0	5.0	120	7.0		5.0m△	5.0Ø	500m	50	200	60M§△			E	MD30	
31#	BFX51	33m	6.0 △	§S	1.0		80	4.0	80 *	10uØ	10Ø	100m	15	40 Ø	180M§	1.8		PL	TO5	Ø
32#	BFX61	33m	6.0 △	§S	1.0		80	4.0	80 *	10uØ	10Ø	100m	15	40 Ø	180M§	1.8		PL	TO5	Ø
33	PT2525A	33m	5.0 Ø	§J	300m	200m	240	5.0	200	10nØ	50Ø	10m	20 #		70M§	10		PL	TO5	
34#	SFT443	33m	6.0 △	§S			80	4.0	80 *	10uØ†	10Ø	100m	15	40 Ø	180M§	1.8		PL	TO5	Ø
35♦#	ZT90	33m	1.0	§J	1.0 #		60	6.0	60	100n	10Ø	200m	60	200 #	300M§	3.5		PLØ	TO5	AØ
36♦#	ZT91	33m	1.0	§J	1.0 #		120	6.0	100	1.0uØ	10Ø	200m	40	120 #	250M§	6.0		PLØ	TO5	AØ
37♦#	ZT92	33m	1.0	§J	1.0 #		120	6.0	100	1.0uØ	10Ø	200m	65	200 #	250M§	6.0		PLØ	TO5	AØ
38♦#	ZT93	33m	1.0	§J	1.0 #		120	6.0	80	100nØ	10Ø	150m	40	120 #	300M§	3.3		PLØ	TO5	AØ
39♦#	ZT94	33m	1.0	§J	1.0 #		60	6.0	45	1.0uØ	10Ø	10m	20 #		300M§	3.5		PLØ	TO5	AØ
40♦#	ZT95	33m	1.0	§J	1.0 #		60	6.0	60	100n	10Ø	350m	30	200 #	300M§	3.4		PLØ	TO5	AØ
41#	ZT3440	33m#	1.0 Ø	§J	1.0	500m	300	7.0	250	20uØ	10Ø	20m	40	160	20M§△			D△	TO5	Ø
42	2N5334†	34m	6.0 Ø	§J	3.0	500m	60	8.0	60	5.0u	2.0Ø	1.0	30	150 #	40M§△		50n		TO39	AØ
43	2N5335†	34m	6.0 Ø	§J	3.0	500m	80	8.0	80	5.0u	2.0Ø	1.0	30	150 #	40M§△		50n		TO39	AØ
44	2N5336†	34m	6.0 Ø	§J	5.0	1.0	80	6.0	80	10u	2.0Ø	2.0	30	120	30M§△		100n		TO39	AØ
45	2N5337†	34m	6.0 Ø	§J	5.0	1.0	80	6.0	80	10u	2.0Ø	2.0	60	240	30M§△		100n		TO39	AØ
46	2N5338†	34m	6.0 Ø	§J	5.0	1.0	100	6.0	100	10u	2.0Ø	2.0	30	120	30M§△		100n		TO39	AØ
47	2N5339†	34m	6.0 Ø	§J	5.0	1.0	100	6.0	100	10u	2.0Ø	2.0	60	240	30M§△		100n		TO39	AØ
48	2N2657†	40m§	1.2	§J	5.0	500m	80	7.0	60	100nØ	2.0Ø	1.0	40	120 #	20M§△		80n		TO5	AØ
49	2N2658†	40m§	1.2	§J	5.0	500m	100	7.0	80	100nØ	2.0Ø	1.0	40	120 #	20M§△		80n		TO5	AØ
50	2N2949	40m	6.0 Ø	§C	700m	100m	60	3.0	60 Ø	100nØ	2.0Ø	4.0m	5.0	100 #	100M§△	1.2			R70	AØ
51	2N2950	40m	6.0 Ø	§C	700m	100m	60	3.0	60 Ø	100nØ	2.0Ø	4.0m	5.0	100 #	100M§△	1.2			MT30	A
52	2N3296	40m	6.0 Ø	§J	700m	100m	60	3.0	40 Ø	100nØ	2.0Ø	4.0m	5.0	50	100M§△	1.2			MT30	A
53♦	2N3553	40m	7.0 Ø	§C	350m	100m	65 †	4.0†	40	1.0m#	5.0Ø	250m	15	150	350M§△	4.0			TO39	AØ
54	JAN2N3553	40m	1.0	§J	1.0		65	4.0	40	200u†Ø	5.0Ø	150m	15	150 #	50M§△				TO39	AØ
55	2N3593	40m	1.0	§C	500m	250m	200	10	200 §	1.0uØ	8.0Ø	200m	30	90 #	15M§△				MT20	Ø
56	2N3594	40m	1.0	§C	500m	250m	200	10	200 §	1.0uØ	8.0Ø	200m	75	150 #	15M§△				MT20	Ø
57	2N3850†	40m	30 Ø	§C	5.0	500m	100	5.0	80	100n§Ø	1.0Ø	1.0	50	150 #	20M§△	1.2	150n		TO59	AØ
58	2N3851†	40m	30 Ø	§C	5.0	500m	100	5.0	80	100n§Ø	1.0Ø	1.0	30	90 #	20M§△	1.2	150n		TO59	AØ
59	2N3852†	40m	30 Ø	§C	5.0	500m	60	5.0	40	100n§Ø	1.0Ø	1.0	50	150 #	20M§△	1.2	150n		TO59	AØ
60	2N3853†	40m	30 Ø	§C	5.0	500m	60	5.0	40	100n§Ø	1.0Ø	1.0	30	90 #	20M§△	1.2	150n		TO59	AØ
61	2N3916	40m	5.0 Ø	§J	150m	150m	150	5.0	150	1.0m#	10Ø	150m	40	200 #	50M§△				MD28	Ø
62	2N3924	40m	7.0 Ø	§S	500m		36	4.0	18	100uØ					250M§△				TO39	AØ
63	2N4349†	40m	7.0 Ø	§J	2.0		65	5.0		100u#	1.0	1.0	20		350M§	500m	130n§	PE	TO5	Ø
64	2N4350	40m	7.0 Ø	§J	350m	100m	65	4.0	40	100u#	5.0Ø	350m	10	200	300M§△	2.9			TO5	AØ
65	2N4862	40m§	4.0 Ø	§J	2.0	500m	140	8.0	120	100nØ	5.0Ø	500m	50	150 #	50M§△				TO46	A
66	2N4863	40m§	4.0 Ø	§J	2.0	500m	140	8.0	120	100nØ	5.0Ø	500m	50	150 #	50M§△				TO5	A
67	2N5090	40m§	50 Ø	§J	400m	400m	55	3.5	30	20u△	5.0Ø	50m	10	200	500M§△	10			TO60	A
68	2N5102	40m	70 Ø	§S	3.3	1.0	90	4.0	50 §		4.0Ø	500m	10	100	150M§△				TO60	A☑
69	2N5252	40m	1.0	§S	1.0	250m	300	6.0	300	10u	10Ø	100m	40	120	30M§△	5.0			TO39	AØ
70	2N5253	40m	1.0	§S	1.0	250m	300	6.0	300	10u	10Ø	100m	80	250	30M§△	5.0			TO39	AØ
71#	2SC354	40m	7.0 Ø	§J	1.5		40	4.0		1.0uØ	4.0Ø	500m	100 Ø		180M§			PL	TO5	
72#	2SC541	40m			1.0		50	4.0	35	5.0uØ	4.0Ø	100m	25 Ø		450M§			PE	TO5	A
73#	2SC547	40m	6.0 Ø		1.0		65	4.0	40	100u#	3.0Ø	150m	10		400M§	4.0		PE	TO39	
74#	2SC548	40m			500m		36	4.0	18	100u#	3.0Ø	150m	10		550M§	4.0		PE	TO39	
75#	2SC554	40m	6.0 Ø	§J	500m		36	4.0	18	100u#	3.0Ø	150m	10		400M§	4.0		PE	TO39	
76#	2SC597	40m	6.0 Ø	§J	1.0		65	4.0	40		28Ø	100m	30 †		400M§			PE	R816	AØ
77#	2SC665	40m	50 △Ø	§J	5.0	1.5	125	5.0	75		5.0Ø	1.0	35	200	250k	300m		ME	TO3	AØ
78#	2SC909	40m	7.0 Ø	§J	500m		40	3.0	40 §	50uØ	10Ø	100m	5.0		800M§			PE	MT59b	GE
79	40280	40m	7.0 Ø	§J	500m		36	4.0	18	100u△					550M§			PE	TO39	AØ
80	40290	40m	7.0 Ø	§J	400m			4.0	50 #*	100u△					500M§			PE	TO39	AØ
81	40305	40m	7.0 Ø	§J	1.0		65	4.0	40	100n△	5.0Ø	150m	10					PE	TO39	AØ
82	40392	40m	7.0 Ø	§J	700m		60	5.0	40	250n♦Ø	10Ø	150m	50	250 #	100M§△	7.1		DPL	MD28a	
83	40544	40m	7.0 Ø	§J	700m			5.0	50 §	10u*	4.0Ø	50m	35	200	100M§	6.3		DPL	MD28	AØ
84▼	40605	40m	1.0	§J	330m		65	4.0	40	100n△					350M§△	4.0		PE	TO39	AØ
85	A246	40m	7.0 Ø	§J			40	4.0	20		5.0Ø	1.0	10		350M§			PE	MT72d	R
86#	BC300	40m	7.0	#C	1.0		130	7.0	130 Ø	10uØ	10Ø	150m	40	140	120M§			PL△	TO39	
87#	BC301	40m	7.0	#C	1.0			7.0	65	10uØ	10Ø	150m	40	140	130M§			PL△	TO39	
88#	BF111	40m§	3.0 Ø	§J	80m			5.0	200 §	200n§	20Ø	60m	20		120M§			D	TO39	AØ
89#	BLY33	40m	5.0 Ø	§J	500m			4.0	33	5.0m§	5.0Ø	200m	10		400M§			PL	TO39	AØ
90#	BLY34	40m	5.0 Ø	§J	5.0			4.0	20	5.0m§	5.0Ø	200m	10		500M§			PL	TO39	AØ
91	D7A30	40m	1.0	§J			50	5.0	50 Ø	10uØ	10Ø	200	12	36	15Mt			ME	R133b	A
92	D7A31	40m	1.0	§J			50	5.0	50 Ø	10uØ	10Ø	200	30	90	15Mt			ME	R133b	A
93	D7A32	40m	1.0	§J			50	5.0	50 Ø	10uØ	10Ø	200	75	200	15Mt			ME	R133b	A
94	D28A9	40m☑	1.0	§J	500m		40	5.0	40	100n	4.5Ø	2.0mØ	75	225					X51	
95	D28A10	40m☑			500m		40	5.0	40	100n	4.5Ø	2.0mØ	180	540					X51	
96	MHT4451	40m§	4.0 Ø	§J	5.0		80	8.0	40	1.0uØ	5.0Ø	1.0	20	60 #	20M§△			PL	TO5	AØ
97	MHT4452	40m§	4.0 Ø	§J	5.0		100	8.0	80	1.0uØ	5.0Ø	1.0	20	60 #	20M§△			PL	TO5	AØ
98	MHT4453	40m§	4.0 Ø	§J	5.0		80	8.0	40	1.0uØ	5.0Ø	1.0	40	120 #	20M§△			PL	TO5	AØ
99	MHT4454	40m§	4.0 Ø	§J	5.0		100	8.0	80	1.0uØ	5.0Ø	1.0	40	120 #	20M§△			PL	TO5	AØ
100	MHT4455	40m§	4.0 Ø	§J	5.0		80	8.0	40	1.0uØ	5.0Ø	1.0	100 #		20M§△			PL	TO5	AØ
101	MHT4456	40m§	4.0 Ø	§J	5.0		100	8.0	80	1.0uØ	5.0Ø	1.0	100 #		20M§△			PL	TO5	AØ
102	MHT4483	40m§	4.0 Ø	§J	5.0		60	5.0	40	1.0uØ	5.0Ø	1.0	20	60 #	20M§△			PL	TO5	AØ
103	MHT5001	40m§	4.0 Ø	§J	2.0	500m	60	8.0		100nØ	2.0Ø	500m	50	150 #	50M§△			PL	TO46	A
104	MHT5002	40m§	4.0 Ø	§J	2.0	500m	80	8.0		100nØ	2.0Ø	500m	50	150 #	50M§△			PL	TO46	A
105	MHT5003	40m§	4.0 Ø	§J	2.0	500m	100	8.0		100nØ	2.0Ø	500m	50	150 #	50M§△			PL	TO46	A
106	MHT5004	40m§	4.0 Ø	§J	2.0	500m	140	8.0		100nØ	2.0Ø	500m	50	150 #	50M§△			PL	TO46	A
107	MHT5005	40m§	4.0 Ø	§J	2.0	500m	180	8.0		100nØ	2.0Ø	500m	50	150 #	50M§△			PL	TO46	A
108	MHT5006	40m§	4.0 Ø	§J	2.0	500m	60	8.0		100nØ	2.0Ø	500m	30 #		50M§△			PL	TO46	A
109	MHT5007	40m§	4.0 Ø	§J	2.0	500m	80	8.0		100nØ	2.0Ø	500m	30 #		50M§△			PL	TO46	A
110	MHT5008	40m§	4.0 Ø	§J	2.0	500m	100	8.0		100nØ	2.0Ø	500m	30 #		50M§△			PL	TO46	A

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AE XM P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CODE
1	MHT5009	40m$	4.0 Ø	§J	2.0	500m	140	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	TO46	A
2	MHT5010	40m$	4.0 Ø	§J	2.0	500m	180	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	TO46	A
3	MHT5011	40m$	4.0 Ø	§J	2.0	500m	60	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO46	A
4	MHT5012	40m$	4.0 Ø	§J	2.0	500m	80	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO46	A
5	MHT5013	40m$	4.0 Ø	§J	2.0	500m	100	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO46	A
6	MHT5014	40m$	4.0 Ø	§J	2.0	500m	140	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO46	A
7	MHT5015	40m$	4.0 Ø	§J	2.0	500m	180	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO46	A
8	MHT5051	40m$	4.0 Ø	§J	2.0	500m	175	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	TO46	A
9	MHT5052	40m$	4.0 Ø	§J	2.0	500m	200	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	TO46	A
10	MHT5053	40m$	4.0 Ø	§J	2.0	500m	225	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	TO46	A
11	MHT5054	40m$	4.0 Ø	§J	2.0	500m	175	8.0		100nØ	2.0Ø	500m	30	150 #	50M§Δ			PL	TO46	A
12	MHT5055	40m$	4.0 Ø	§J	2.0	500m	200	8.0		100nØ	2.0Ø	500m	30	150 #	50M§Δ			PL	TO46	A
13	MHT5056	40m$	4.0 Ø	§J	2.0	500m	225	8.0		100nØ	2.0Ø	500m	30	150 #	50M§Δ			PL	TO46	A
14	MHT5501	40m$	4.0 Ø	§J	2.0	500m	60	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	TO5	A
15	MHT5502	40m$	4.0 Ø	§J	2.0	500m	80	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	TO5	A
16	MHT5503	40m$	4.0 Ø	§J	2.0	500m	100	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	TO5	A
17	MHT5504	40m$	4.0 Ø	§J	2.0	500m	140	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	TO5	A
18	MHT5505	40m$	4.0 Ø	§J	2.0	500m	180	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	TO5	A
19	MHT5506	40m$	4.0 Ø	§J	2.0	500m	60	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	TO5	A
20	MHT5507	40m$	4.0 Ø	§J	2.0	500m	80	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	TO5	A
21	MHT5508	40m$	4.0 Ø	§J	2.0	500m	100	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	TO5	A
22	MHT5509	40m$	4.0 Ø	§J	2.0	500m	140	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	TO5	A
23	MHT5510	40m$	4.0 Ø	§J	2.0	500m	180	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	TO5	A
24	MHT5511	40m$	4.0 Ø	§J	2.0	500m	60	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO5	A
25	MHT5512	40m$	4.0 Ø	§J	2.0	500m	80	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO5	A
26	MHT5513	40m$	4.0 Ø	§J	2.0	500m	100	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO5	A
27	MHT5514	40m$	4.0 Ø	§J	2.0	500m	140	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO5	A
28	MHT5515	40m$	4.0 Ø	§J	2.0	500m	180	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO5	A
29	MHT5551	40m	4.0		2.0	.50	175	8.0	150	.10u	2.0	.50	50	150	50M				TO5	
30	MHT5552	40m	4.0		2.0	.50	200	8.0	175	.10u	2.0	.50	50	150	50M				TO5	
31	MHT5553	40m	4.0		2.0	.50	225	8.0	200	.10u	2.0	.50	50	150	50M				TO5	
32	MHT5554	40m	4.0		2.0	.50	175	8.0	150	.10u	2.0	.50	30		50M				TO5	
33	MHT5555	40m	4.0		2.0	.50	200	8.0	175	.10u	2.0	.50	30		50M				TO5	
34	MHT5556	40m	4.0		2.0	.50	225	8.0	200	.10u	2.0	.50	30		50M				TO5	
35	MHT9001	40m$	4.0 Ø$	§J	5.0	500m	50	5.0	30	1.0uØ	2.0Ø	1.0	20 #		10M§Δ			PLΔ	TO5	AØ
36	MHT9002	40m$	4.0 Ø$	§J	5.0	500m	70	5.0	50	1.0uØ	2.0Ø	1.0	20 #		10M§Δ			PLΔ	TO5	AØ
37	MHT9003	40m$	4.0 Ø$	§J	5.0	500m	90	5.0	70	1.0uØ	2.0Ø	1.0	20 #		10M§Δ			PLΔ	TO5	AØ
38	MHT9004	40m$	4.0 Ø$	§J	5.0	500m	50	5.0	30	1.0uØ	2.0Ø	1.0	30	90 #	10M§Δ			PLΔ	TO5	AØ
39	MHT9005	40m$	4.0 Ø$	§J	5.0	500m	70	5.0	50	1.0uØ	2.0Ø	1.0	30	90 #	10M§Δ			PLΔ	TO5	AØ
40	MHT9006	40m$	4.0 Ø$	§J	5.0	500m	90	5.0	70	1.0uØ	2.0Ø	1.0	30	90 #	10M§Δ			PLΔ	TO5	AØ
41	MHT9007	40m$	4.0 Ø$	§J	5.0	500m	50	5.0	30	1.0uØ	2.0Ø	1.0	50	150 #	10M§Δ			PLΔ	TO5	AØ
42	MHT9008	40m$	4.0 Ø$	§J	5.0	500m	70	5.0	50	1.0uØ	2.0Ø	1.0	50	150 #	10M§Δ			PLΔ	TO5	AØ
43	MHT9009	40m$	4.0 Ø$	§J	5.0	500m	90	5.0	70	1.0uØ	2.0Ø	1.0	50	150 #	10M§Δ			PLΔ	TO5	AØ
44	MHT9010	40m$	4.0 Ø$	§J	5.0	500m	50	5.0	30	1.0uØ	2.0Ø	1.0	100 #		10M§Δ			PLΔ	TO5	AØ
45	MHT9011	40m$	4.0 Ø$	§J	5.0	500m	70	5.0	50	1.0uØ	2.0Ø	1.0	100 #		10M§Δ			PLΔ	TO5	AØ
46	MHT9012	40m$	4.0 Ø$	§J	5.0	500m	90	5.0	70	1.0uØ	2.0Ø	1.0	100 #		10M§Δ			PLΔ	TO5	AØ
47	MST20B	40m	2.0	§A	1.0	400m	200	5.0	200 §	12u	10Ø	60m	30		20M§	34		DM	TO5	
48	MST30B	40m	2.0	§A	1.0	400m	300	5.0	300 §	12u	10Ø	60m	30		20M§	34		DM	TO5	
49	MST40B	40m	2.0	§A	1.0	400m	400	5.0	400 §	12u	10Ø	60m	30		20M§	34		DM	TO5	
50	MST50B	40m	2.0	§A	1.0	400m	500	5.0	500 §	12u	10Ø	60m	30		20M§	34		DM	TO5	
51	MST60B	40m	2.0	§A	1.0	400m	600	5.0	600 §	12u	10Ø	60m	30		20M§	34		DM	TO5	
52	MST70B	40m	2.0	§A	1.0	400m	700	5.0	700 §	12u	10Ø	60m	30		20M§	34		DM	TO5	
53	S715*	40m	7.0 Ø	§J	800m		55	3.5	30	40uΔ♦					800M§	5.0		PE	TO39	
54	SDT5551	40m$	4.0 Ø	§J	2.0	500m	175	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	TO5	
55	SDT5552	40m$	4.0 Ø	§J	2.0	500m	200	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	TO5	
56	SDT5553	40m$	4.0 Ø	§J	2.0	500m	225	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	TO5	
57	SDT5554	40m$	4.0 Ø	§J	2.0	500m	175	8.0		100nØ	2.0Ø	500m	30	150 #	50M§Δ			PL	TO5	
58	SDT5555	40m$	4.0 Ø	§J	2.0	500m	200	8.0		100nØ	2.0Ø	500m	30	150 #	50M§Δ			PL	TO5	
59	SDT5556	40m$	4.0 Ø	§J	2.0	500m	225	8.0		100nØ	2.0Ø	500m	30	150 #	50M§Δ			PL	TO5	
60	SE8042	40m	1.0	§J	1.0		30	6.0	30	50n	1.0Ø	150m	40 #	540 #	230M§			DPL	TO39	A
61	STT4451	40m	1.2	§J	5.0		80	8.0	40	1.0uØ	5.0Ø	1.0	20	60 #	20M§Δ			PL	TO5	Ø
62	STT4452	40m	1.2	§J	5.0		100	8.0	80	1.0uØ	5.0Ø	1.0	20	60 #	20M§Δ			PL	TO5	Ø
63	STT4453	40m	1.2	§J	5.0		80	8.0	40	1.0uØ	5.0Ø	1.0	40	120 #	20M§Δ			PL	TO5	Ø
64	STT4454	40m	1.2	§J	5.0		100	8.0	80	1.0uØ	5.0Ø	1.0	40	120 #	20M§Δ			PL	TO5	Ø
65	STT4455	40m	1.2	§J	5.0		80	8.0	40	1.0uØ	5.0Ø	1.0	100 #		20M§Δ			PL	TO5	Ø
66	STT4456	40m	1.2	§J	5.0		100	8.0	80	1.0uØ	5.0Ø	1.0	100 #		20M§Δ			PL	TO5	Ø
67	STT4483	40m	1.2	§J	5.0		60	5.0	40	1.0uØ	5.0Ø	1.0	20 #	60 Ø	20M§Δ			PL	TO5	Ø
68	STT9001	40m	1.2	§J	5.0		50	5.0	30	1.0uØ	5.0Ø	1.0	20 #		10M§Δ			PL	TO5	Ø
69	STT9002	40m	1.2	§J	5.0		70	5.0	50	1.0uØ	5.0Ø	1.0	20 #		10M§Δ			PL	TO5	Ø
70	STT9003	40m	1.2	§J	5.0		90	5.0	70	1.0uØ	5.0Ø	1.0	20 #		10M§Δ			PL	TO5	Ø
71	STT9004	40m	1.2	§J	5.0		50	5.0	30	1.0uØ	5.0Ø	1.0	30	90 #	10M§Δ			PL	TO5	Ø
72	STT9005	40m	1.2	§J	5.0		70	5.0	50	1.0uØ	5.0Ø	1.0	30	90 #	10M§Δ			PL	TO5	Ø
73	STT9006	40m	1.2	§J	5.0		90	5.0	70	1.0uØ	5.0Ø	1.0	30	90 #	10M§Δ			PL	TO5	Ø
74	STT9007	40m	1.2	§J	5.0		50	5.0	30	1.0uØ	5.0Ø	1.0	50	150 #	10M§Δ			PL	TO5	Ø
75	STT9008	40m	1.2	§J	5.0		70	5.0	50	1.0uØ	5.0Ø	1.0	50	150 #	10M§Δ			PL	TO5	Ø
76	STT9009	40m	1.2	§J	5.0		90	5.0	70	1.0uØ	5.0Ø	1.0	50	150 #	10M§Δ			PL	TO5	Ø
77	STT9010	40m	1.2	§J	5.0		50	5.0	30	1.0uØ	5.0Ø	1.0	100		10M§Δ			PL	TO5	Ø
78	STT9011	40m	1.2	§J	5.0		70	5.0	50	1.0uØ	5.0Ø	1.0	100		10M§Δ			PL	TO5	Ø
79	STT9012	40m	1.2	§J	5.0		90	5.0	70	1.0uØ	5.0Ø	1.0	100		10M§Δ			PL	TO5	Ø
80#	ZT210	40m	1.0	§J	1.0		60	7.0	60 §	250n	10Ø	150m	30	150				PE	TO5	Ø
81#	ZT211	40m	1.0	§J	1.0		90	7.0	85 §	20nØ	10Ø	150m	40	120			70n	PE	TO5	Ø
82	2N5212	43m	7.5 Ø	§C	600m	200m	80	4.0	80	10u♦Ø	5.0Ø	200m	10	60	200M§	930m			TO37	AØ
83	2N5213	43m	7.5 Ø	§C	500m	200m	70	4.0	70	100u♦Ø	5.0Ø	200m	10	80	350M§	1.0			TO37	AØ
84	2N5217	43m	7.5 Ø	§C	500m	200m	80	4.0	80	100u♦Ø	5.0Ø	200m	10	80	350M§Δ	1.0			MT62b	FØ
85	A270	45m	8.0 Ø	§J	500m		65	4.0	36	5.0mΔ	5.0Ø	500m	5.0		500M§	1.0		PE	TO39	AØ
86	A274	45m	8.0 Ø	§J	750m		36	4.0	18	5.0mΔ	5.0Ø	500m	5.0		700M§	1.0		PE	TO39	AØ
87#	BFS22	45m	8.0	§J	750m		36	4.0	18	5.0mΔ	5.0Ø	500m	5.0		700M§	1.0			TO39	AØ
88♦	BFS23	45m	8.0	§J	1.5 #		65	4.0	36	5.0mΔ	5.0Ø	500m	5.0 †		500M§			PE	TO39	AØ
89▼	MPSU05	45m	1.0	†J	1.0		60	4.0	60	100nØ	5.0Ø	50m	100	180	150M§	2.4			X81	AØ
90▼	MPSU06	45m	1.0	†J	1.0		80	4.0	80	100nØ	5.0Ø	50m	100	180	150M§	2.4			X81	AØ
91▼	MPSU10	45m	1.0	†J	1.0		300	8.0	300	200nØ	15Ø	1.0m	25		60M§Δ	75		AN	X81	AØ
92	2N2033	50mØ	5 Ø	§J	3.0	1.0	80	10	60	25u	4.0Ø	.50	20	60	1.5k†	.80	1.8u	DΔ	TO5	AØ
93	2N2034	50mØ	5.0 Ø	§J	3.0	1.0	80	10	60	25u	4.0Ø	1.0	20	60	1.5 †	300m	1.8u	DΔ	TO5	AØ
94	JAN2N2631	50m	8.8 Ø	§J	1.5		80	4.0	60	100nØ	10Ø	300m	30	150 #	150M§Δ	670m			R81	
95	2N2876	50m	18 Ø	§J	2.5		80	4.0	60	100nØ					200M§			PL	TO60	A
96	2N2911	50m$	5.0 Ø	§C	3.0	1.0	150	10	125		2.0Ø	1.0	20	60	1.0M				TO5	AØ
97	2N3262†	50m	1.0	§J	1.5		100	4.0	80	100n	4.0Ø	500m	40		150M§Δ	600m	20mØ	PLD	TO39	AØ
98	2N3619	50m	7.5 Ø	§J	2.5	500m	75	4.0	40	25uØ	5.0Ø	1.0	40 #		200M§Δ				R50	
99	2N3620	50m	7.5 Ø	§J	5.0	1.0	75	4.0	40	25uØ	5.0Ø	1.0	40 #		200M§Δ				MT27	
100	2N3623	50m	7.5 Ø	§J	2.5	500m	75	4.0	40	1.0uØ	5.0Ø	1.0	40 #		200M§Δ				R50	
101	2N3624	50m	7.5 Ø	§J	5.0	1.0	75	4.0	40	1.0uØ	5.0Ø	1.0	40 #		200M§Δ				MT27	
102	2N3627	50m	7.5 Ø	§J	2.5	500m	100	4.0	50	1.0uØ	5.0Ø	1.0	40 #		200M§Δ				R50	
103	2N3628	50m	7.5 Ø	§J	5.0	1.0	100	4.0	50	1.0uØ	5.0Ø	1.0	40 #		200M§Δ				MT27	
104	2N3675†	50m	8.8 Ø	§C	3.0	1.0	90	7.0	55	5.0m#	1.0Ø	1.0	12	60	1.0M§Δ	800m	5.0u		TO5	Ø
105	2N3676†	50m	8.8 Ø	§C	3.0	1.0	90	7.0	90	5.0m#	1.0Ø	1.0	12	60	1.0M§Δ	800m	5.0u		TO5	Ø
106	2N4054	50m§	4.0 Ø	§C	100m		300	7.0	300	100u	10Ø	50m	30	90	15M§Δ	67			X51	L
107	2N4055	50m§	4.0 Ø	§C	100m		250	7.0	250	100u	10Ø	50m	30	90	15M§Δ	67			X51	L
108	2N4056	50m§	4.0 Ø	§C	100m		200	7.0	200	100u	10Ø	50m	30	90	15M§Δ	67			X51	L
109	2N4057	50m§	4.0 Ø	§C	100m		150	7.0	150	100u	10Ø	50m	30	90	15M§Δ	67			X51	L
110	2N4132	50m	7.5 Ø	§J	600m	100m	90	5.0	80	10uØ	5.0Ø	200m	10	80 #	200M§Δ				TO37	AØ

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AEXMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CONFIG
1	2N4150†	50m$	5.0 Ø	§J	5.0	2.0	100	5.0	80	100nØ	5.0Ø	5.0	40	120 #	15M§△		200n		TO5	AØ
2	JAN2N4150†	50m	1.5	§A	10		100	7.0	70	100nØ	5.0Ø	5.0	40	120 #	15M§△		500nØ		TO5	A
3	2N4225†	50m		§J	3.0	.50	80	6.0	40	1.0m♦	5.0Ø	1.0	40	150	150M§△	3.3	.03u		R114	
4	2N4226†	50m		§J	3.0	.50	100	6.0	60	1.0m♦	5.0Ø	1.0	40	150	150M§△	3.3	.03u		R114	
5	2N5237†	50m$	5.0 Ø	§J	5.0	2.0	150	5.0	120	10u#	5.0Ø	5.0	40	120 #	50M§△		500n		TO5	AØ
6	JAN2N5237†	50m	1.5	§A	10		150	7.0	120	100nØ	5.0Ø	5.0	40	120 #	15M§△		500nØ		TO5	A
7	2N5238†	50m$	5.0 Ø	§J	5.0	2.0	200	5.0	170	10u#	5.0Ø	5.0	40	120 #	50M§△		500n		TO5	AØ
8	JAN2N5238†	50m	1.5	§A	10		200	7.0	170	100nØ	5.0Ø	5.0	40	120 #	15M§△		500nØ		TO5	A
9	2N5327†	50m$	5.0 Ø	§J	10	2.0	100	5.0	80		2.0Ø	1.0	100	300	100M§△	500m	200nØ		TO5	A
10#	2SC582	50m	4.0	$J	100m		300	3.0	300 §	100m	10	50m	30	150				ME	TO66	Ø
11#	2SC778	50m	2.5	§J	2.0		80	4.0	80 §	10mØ	10Ø	100m	5.0		150M§			PE	MD32	Ø
12#	2SC911	50m	2.0	§J	500m		40	3.0	40 §	50mØ	10Ø	100m	5.0		800M§			PE	X63b	GE
13▼#	2SC1012A	50m	2.5 Ø	§J	60m	10m	250	5.0	250 §	1.0m*	20Ø	40m	20		100M§	6.0m		DPL	R86	AØ
14#	2SD136	50m	4.0 Ø	$J	100m		200	3.0	200	10mØ	10Ø	50m	30	250	25M§			D	MD26	
15#	2SD137	50m	4.0 Ø	§J	100m		300	3.0	300	10mØ	10Ø	50m	30	250	25M§			D	MD26	
16#	2SD156	50m§	4.0 Ø	§J	100m		200	3.0	200	10mØ	10Ø	50m	20	250 *	20M§	100		D	TO66	
17#	2SD157	50m§	4.0 Ø	§J	100m		300	3.0	300	10mØ	10Ø	50m	20	250 *	20M§	100		D	TO66	
18	3TE477	50m						4.0	30	1.0m	5.0Ø	50	10	200	800M§△			PE		
19	40347	50m	1.0	§J	1.5	500m	60	7.0	40	1.0u*	4.0Ø	450m	20	80		2.2		D	TO5	AØ
20	40348	50m	1.0	§J	1.5	500m	90	7.0	65	1.0u*	4.0Ø	300m	30	100		2.5		D	TO5	AØ
21	40349	50m	1.0	§J	1.5	500m	160	7.0	140	1.0u*	4.0Ø	150m	25	100		3.3		D	TO5	AØ
22	B3465	50m	5.0	§J	3.0		100	6.0	60	100nØ	5.0Ø	1.0	40		200M§△	500m			TO5	AØ
23	B3466	50m	5.0	ØJ	3.0		100	6.0	60	100nØ	10Ø	2.0	20		200M§△	500m			MT27	
24	B3531	50m	4.0 Ø$	§C	5.0		80	8.0	40	1.0mØ	.50Ø	1.0	20	60	30M§△	500m		PE	TO5	
25	B3532	50m	4.0 Ø$	§C	5.0		100	8.0	80	1.0mØ	.50Ø	1.0	20	60	30M§△	500m		PE	TO5	
26	B3533	50m	4.0 Ø$	§C	5.0		80	8.0	40	1.0mØ	.50Ø	1.0	40	120	30M§△	500m		PE	TO5	
27	B3534	50m	4.0 Ø$	§C	5.0		100	8.0	80	1.0mØ	.50Ø	1.0	40	120	30M§△	500m		PE	TO5	
28	B3535	50m	4.0 Ø$	§C	5.0		80	8.0	40	1.0mØ	.50Ø	1.0	100		30M§△	500m		PE	TO5	
29	B3536	50m	4.0 Ø$	§C	5.0		100	8.0	80	1.0mØ	.50Ø	1.0	100		30M§△	500m		PE	TO5	
30	B3537	50m	4.0 Ø$	§C	5.0		60	5.0	40	1.0mØ	.50Ø	1.0	20	60	40M§△	500m		PE	TO5	
31	B3594	50m	5.0 Ø$	§C	10		60	5.0	40	1.0mØ		5.0 Ø	40	120	30M§△	100m		PE	TO5	
32	B3595	50m	5.0 Ø$	§C	10		80	5.0	60	1.0mØ		5.0 Ø	40	120	30M§△	100m		PE	TO5	
33	B3596	50m	5.0 Ø$	§C	10		100	5.0	80	1.0mØ		5.0 Ø	40	120	30M§△	100m		PE	TO5	
34	B3597	50m	5.0 Ø$	§C	10		60	5.0	40	1.0mØ		5.0 Ø	20	60	15M§△	1.2		PE	TO5	
35	B3598	50m	5.0 Ø$	§C	10		80	5.0	60	1.0mØ		5.0 Ø	20	60	15M§△	1.2		PE	TO5	
36	B3599	50m	5.0 Ø$	§C	10		100	5.0	80	1.0uØ		5.0 Ø	20	60	15M§△	1.2		PE	TO5	
37	B3600	50m	5.0 Ø$	§C	10		60	5.0	40	1.0uØ		5.0 Ø	40	120	15M§△	1.2		PE	TO5	
38	B3601	50m	5.0 Ø$	§C	10		80	5.0	60	1.0uØ		5.0 Ø	40	120	15M§△	1.2		PE	TO5	
39	B3602	50m	5.0 Ø$	§C	10		100	5.0	80	1.0uØ		5.0 Ø	40	120	15M§△	1.2		PE	TO5	
40	B3603	50m	5.0 Ø$	§C	10		60	5.0	40	1.0uØ		5.0 Ø	100		15M§△	1.2		PE	TO5	
41	B3604	50m	5.0 Ø$	§C	10		80	5.0	60	1.0uØ		5.0 Ø	100		15M§△	1.2		PE	TO5	
42	B3605	50m	5.0 Ø$	§C	10		100	5.0	80	1.0uØ		5.0 Ø	100		15M§△	1.2		PE	TO5	
43	B3606	50m	4.0 Ø$	§C	5.0		50	5.0	30	1.0uØ		1.0 Ø	20					PE	TO5	
44	B3607	50m	4.0 Ø$	§C	5.0		70	5.0	50	1.0uØ		1.0 Ø	20					PE	TO5	
45	B3608	50m	4.0 Ø$	§C	5.0		90	5.0	70	1.0uØ		1.0 Ø	20					PE	TO5	
46	B3609	50m	4.0 Ø$	§C	5.0		50	5.0	30	1.0uØ		1.0 Ø	30	90				PE	TO5	
47	B3610	50m	4.0 Ø$	§C	5.0		70	5.0	50	1.0uØ		1.0 Ø	30	90				PE	TO5	
48	B3611	50m	4.0 Ø$	§C	5.0		90	5.0	70	1.0uØ		1.0 Ø	30	90				PE	TO5	
49	B3612	50m	4.0 Ø$	§C	5.0		50	5.0	30	1.0uØ		1.0 Ø	50	150				PE	TO5	
50	B3613	50m	4.0 Ø$	§C	5.0		70	5.0	50	1.0uØ		1.0 Ø	50	150				PE	TO5	
51	B3614	50m	4.0 Ø$	§C	5.0		90	5.0	70	1.0uØ		1.0 Ø	50	150				PE	TO5	
52	B3615	50m	4.0 Ø$	§C	5.0		50	5.0	30	1.0uØ		1.0 Ø	100					PE	TO5	
53	B3616	50m	4.0 Ø$	§C	5.0		70	5.0	50	1.0uØ		1.0 Ø	100					PE	TO5	
54	B3617	50m	4.0 Ø$	§C	5.0		90	5.0	70	1.0uØ		1.0 Ø	100					PE	TO5	
55	B3749	50m$	3.7 $	§J	5.0				50										MT27	
56	B3750	50m$	3.7 $	§J	5.0				50										MT27	
57#	BLY76	50m	5.0	§J	1.5		65	4.0	36		5.0Ø	500m	50 Ø		1.3G§					
58	D28A5	50m§	1.0	#J	500m		35	5.0	25	100n	4.5Ø	2.0m	75	225	180k§	60		†	X51	
59	D28A6	50m§	1.0	#J	500m		35	5.0	25	100n	4.5Ø	2.0m	180	540	330k§	60		†	X51	
60	D28A12	50m§	1.0	#J	500m		50	5.0	50	100n	4.5Ø	2.0m	75	225	150k§	60		†	X51	
61	D28A13	50m§	1.0	#J	500m		50	5.0	50	100n	4.5Ø	2.0m	180	540	300k§	60		†	X51	
62#	DT1311	50m	5.0	§J	1.5	500m	60	12	60 §	1.5u	4.0	200m	20	60	1.5M§	3.7		D	TO5	
63#	DT1312	50m	5.0	§J	1.5	500m	100	12	100 §	1.5u	4.0	200m	20	60	1.5M§	3.7		D	TO5	
64#	DT1321	50m	5.0	§J	1.5	500m	60	12	60 §	1.5u	4.0	200m	40	120	2.5M§	3.7		D	TO5	
65#	DT1322	50m	5.0	§J	1.5	500m	100	12	100 §	1.5u	4.0	200m	40	120	2.5M§	3.7		D	TO5	
66	MHT7401	50m$	5.0 Ø$	§J	5.0	2.0	60	5.0	40	1.0uØ	5.0Ø	5.0	40	120 #	15M§△			PL△	TO5	AØ
67	MHT7402	50m$	5.0 Ø$	§J	5.0	2.0	80	5.0	60	1.0uØ	5.0Ø	5.0	40	120 #	15M§△			PL△	TO5	AØ
68	MHT7403	50m$	5.0 Ø$	§J	5.0	2.0	100	5.0	80	1.0uØ	5.0Ø	5.0	40	120 #	15M§△			PL△	TO5	AØ
69	MHT7411	50m$	5.0 Ø$	§J	5.0	2.0	60	5.0	40	1.0uØ	5.0Ø	5.0	20	60 #	15M§△			PL△	TO5	AØ
70	MHT7412	50m$	5.0 Ø$	§J	5.0	2.0	80	5.0	60	1.0uØ	5.0Ø	5.0	20	60 #	15M§△			PL△	TO5	AØ
71	MHT7413	50m$	5.0 Ø$	§J	5.0	2.0	100	5.0	80	1.0uØ	5.0Ø	5.0	20	60 #	15M§△			PL△	TO5	AØ
72	MHT7414	50m$	5.0 Ø$	§J	5.0	2.0	60	5.0	40	1.0uØ	5.0Ø	5.0	40	120 #	15M§△			PL△	TO5	AØ
73	MHT7415	50m$	5.0 Ø$	§J	5.0	2.0	80	5.0	60	1.0uØ	5.0Ø	5.0	40	120 #	15M§△			PL△	TO5	AØ
74	MHT7416	50m$	5.0 Ø$	§J	5.0	2.0	100	5.0	80	1.0uØ	5.0Ø	5.0	40	120 #	15M§△			PL△	TO5	AØ
75	MHT7417	50m$	5.0 Ø$	§J	5.0	2.0	60	5.0	40	1.0uØ	5.0Ø	5.0	100 #		15M§△			PL△	TO5	AØ
76	MHT7418	50m$	5.0 Ø$	§J	5.0	2.0	80	5.0	60	1.0uØ	5.0Ø	5.0	100 #		15M§△			PL△	TO5	AØ
77	MHT7419	50m$	5.0 Ø$	§J	5.0	2.0	100	5.0	80	1.0uØ	5.0Ø	5.0	100 #		15M§△			PL△	TO5	AØ
78	MSP10	50m	2.0	§A	400m	150m	100	5.0	100 §	3.0u	10Ø	55m	30	55 Ø	40M§	25		DM	MD14	
79	MSP15	50m	2.0	§A	400m	150m	150	5.0	150 §	3.0u	10Ø	55m	30	55 Ø	40M§	25		DM	MD14	
80	MSP20	50m	2.0	§A	400m	150m	200	5.0	200 §	3.0u	10Ø	55m	30	55 Ø	40M§	25		DM	MD14	
81	MSP25	50m	2.0	§A	400m	150m	250	5.0	250 §	3.0u	10Ø	55m	30	55 Ø	40M§	25		DM	MD14	
82	MSP30	50m	2.0	§A	400m	150m	300	5.0	300 §	3.0u	10Ø	55m	30	55 Ø	40M§	25		DM	MD14	
83	MSP35	50m	2.0	§A	400m	150m	350	5.0	350 §	3.0u	10Ø	55m	30	55 Ø	40M§	25		DM	MD14	
84	MSP40	50m	2.0	§A	400m	150m	400	5.0	400 §	4.0u	10Ø	45m	30	55 Ø	40M§	30		DM	MD14	
85	MSP45	50m	2.0	§A	400m	150m	450	5.0	450 §	4.0u	10Ø	45m	30	55 Ø	40M§	30		DM	MD14	
86	MSP50	50m	2.0	§A	350m	150m	500	5.0	500 §	6.0u	10Ø	25m	30	55 Ø	40M§	55		DM	MD14	
87	MSP55	50m	2.0	§A	350m	150m	550	5.0	550 §	6.0u	10Ø	25m	30	55 Ø	40M§	60		DM	MD14	
88	MSP60	50m	2.0	§A	350m	150m	600	5.0	600 §	8.0u	10Ø	25m	30	55 Ø	40M§	60		DM	MD14	
89	MSP65	50m	2.0	§A	350m	150m	650	5.0	650 §	8.0u	10Ø	25m	30	55 Ø	40M§	60		DM	MD14	
90	MSP70	50m	2.0	§A	350m	100m	700	5.0	700 §	10u	10Ø	25m	30	55 Ø	40M§	65		DM	MD14	
91	MSP75	50m	2.0	§A	300m	100m	750	5.0	750 §	10u	10Ø	22m	30	55 Ø	40M§	73		DM	MD14	
92	MSP80	50m	2.0	§A	300m	100m	800	5.0	800 §	12u	10Ø	22m	25	50 Ø	40M§	73		DM	MD14	
93	MSP85	50m	2.0	§A	250m	75m	850	5.0	850 §	12u	10Ø	20m	25	50 Ø	40M§	80		DM	MD14	
94	MSP90	50m	2.0	§A	250m	75m	900	5.0	900 §	15u	10Ø	20m	25	50 Ø	40M§	80		DM	MD14	
95	MSP95	50m	2.0	§A	200m	50m	950	5.0	950 §	15u	10Ø	15m	25	50 Ø	40M§	100		DM	MD14	
96	MSP100	50m	2.0	§A	400m	100m	1.0k	5.0	1.0k§	12u	10Ø	20m	30	180	35M	45		DM	MD14	
97	SDT3421	50m	1.0		5.0	2.0	40	6.0	40	.01m	5.0Ø	2.0	40	120	40M§△	.50	.50u	PE△	TO5	
98	SDT3422	50m	1.0		5.0	2.0	60	6.0	60	.01m	5.0Ø	2.0	40	120	40M§△	.50	.50u	PE△	TO5	
99	SDT3423	50m	1.0		5.0	2.0	80	6.0	80	.01m	5.0Ø	2.0	40	120	40M§△	.50	.50u	PE△	TO5	
100	SDT3424	50m	1.0		5.0	2.0	100	6.0	100	.01m	5.0Ø	2.0	40	120	40M§△	.50	.50u	PE△	TO5	
101	SDT3425	50m	1.0		5.0	2.0	40	6.0	40	.01m	5.0Ø	2.0	20	60	40M§△	.60	.50u	PE△	TO5	
102	SDT3426	50m	1.0		5.0	2.0	60	6.0	60	.01m	5.0Ø	2.0	20	60	40M§△	.60	.50u	PE△	TO5	
103	SDT3427	50m	1.0		5.0	2.0	80	6.0	80	.01m	5.0Ø	2.0	20	60	40M†	.60	.50u	PE△	TO5	
104	SDT3428	50m	1.0		5.0	2.0	100	6.0	100	.01m	5.0Ø	2.0	20	60	40M†	.60	.50u	PE△	TO5	
105	SDT3429	50m	1.0		5.0	2.0	120	6.0	120	.01m	5.0Ø	2.0	20	60	40M†	.60	.50u	PE△	TO5	
106	ST84027	50m	5.0 Ø	§J	1.0		170	20	120	10u	10	200m	40	120	10M	700m	1.0u	P	TO5	
107	ST84028	50m	5.0 Ø	§J	1.0		190	10	140	10u	10	200m	40	120	10M	700m	1.0u	P	TO5	
108	ST84029	50m	5.0 Ø	§J	1.0		220	10	180	10u	10	200m	40	120	10M	700m	1.0u	P	TO5	
109	STC7644	50m	8.8	§J	3.0		150	10	150	250u#Ø	4.0Ø	1.0	20	60 #		400m		D	TO5	AØ
110	STC7645	50m	8.8	§J	3.0		180	10	180	250u#Ø	4.0Ø	1.0	15	60 #		450m		D	TO5	AØ

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	V575	50mØ	7.5 Ø	§J	750m#		40	3.0	20	100uØ	10Ø	150m	20 #	200 #	1.5G§Δ			PE†	MT72f	S
2#	ZT2876	50m	18 Ø♦	§J	2.5		80	4.0	60	1.0uØ					200M§			PL	MT31	
3	TRS100HC	52m	1.0	§J	2.0	200m	100	5.0	100 §	3.0uØ	10Ø	1.0	15	25 Ø	40M§Δ	5.0		DM	TO5	AØ
4	TRS125HC	52m	1.0	§J	2.0	200m	125	5.0	125 §	3.0uØ	10Ø	1.0	15	25 Ø	40M§Δ	5.0		DM	TO5	AØ
5	TRS150HC	52m	1.0	§J	2.0	200m	150	5.0	150 §	3.0uØ	10Ø	1.0	15	25 Ø	40M§Δ	5.0		DM	TO5	AØ
6	TRS175HC	52m	1.0	§J	2.0	200m	175	5.0	175 §	3.0uØ	10Ø	1.0	15	25 Ø	40M§Δ	5.0		DM	TO5	AØ
7	TRS200HC	52m	1.0	§J	2.0	200m	200	5.0	200 §	3.0uØ	10Ø	1.0	15	25 Ø	40M§Δ	5.0		DM	TO5	AØ
8	MPSU02	54m	1.0	†J	800m		60	5.0	40	100nØ		150m	50	300	150M§	2.6		ANt	X81	A
9	2N3925	55m	10 Ø	§S	1.0		36	4.0	18	100uØ					250M§Δ				TO102	AØ
10	2N4877†	55m	1.0 Δ	§J	4.0	1.0	70	5.0	60	100u	2.0Ø	4.0	20	100 #	4.0M§		100nØ		TO39	AØ
11▼	2N5688	56m	10 Ø	§S	500m		40 †	3.0†	20	1.0mΔ	10Ø	50m	15						TO117	R
12	2N3830†	57m	1.0	§S	1.2		80	5.0	50	500n§	1.0Ø	500m	30 #		200M§Δ		50n		TO5	AØ
13	2N3831†	57m	1.0	§S	1.2		70	5.0	40	500n§	1.0Ø	500m	35 #		200M§Δ		50n		TO5	AØ
14	2N3961	57m	10 Ø	§S	1.0		65	4.0	40	1.0m					350M§					A
15	2N4063	57m	10 Ø	§J	1.0	500m	450	7.0	350	20u♦	10Ø	20m	40	160	15M§Δ				MD34	
16	2N4064	57m	10 Ø	§J	1.0	500m	300	7.0	250	20u♦	10Ø	20m	40	160	15M§Δ				MD34	
17	2N4430	57m	10 Ø	§J	1.0	500m	55	3.5	40	2.0m#	5.0Ø	100m	20	200	600M§				MT66	V
18	2N5320†	57m	10 Ø	§J	2.0	1.0	100	7.0	75	100u#	4.0Ø	500m	30	130	50M§Δ	1.0	80nØ		TO5	AØ
19	2N5321†	57m	10 Ø	§J	2.0	1.0	75	5.0	50	100u#	4.0Ø	500m	40	250	50M§Δ	1.6	80nØ		TO5	AØ
20♦	2N5482	57m	10 Ø	§S	350m	100m	50 †	3.0†	30	3.0m	5.0Ø	50m	20	250					MT74	R
21▼	2N5699	57m	10 Ø	§S	1.0		40 †	3.0†	18	1.5mΔ	10Ø	50m	15						TO129	R
22▼	2N5703	57m	10 Ø	§S	750m		36	3.0	18	1.0mΔ	5.0Ø	50m	15						TO117	R
23#	2SC691	57m	10 Ø	§J	500m		60	4.0	40	200uØ	10Ø	100m	5.0		400M§			PE	MT59b	GE
24#	2SC702	57m	10 Ø	§J	750m		40	3.0	20	100uØ	10Ø	100m	5.0		350M§			PE	MT59b	GE
25#	2SC910	57m	10 Ø	§J	1.0		40	3.0	40 §	100uØ	10Ø	100m	5.0		800M§			PE	MT59b	GE
26	40390	57m	3.5	§J	1.0	500m	300	7.0	250	50uΔ	10Ø	20m	40	160	15M§Δ	10		D△	MM9	
27	40446	57m	10 Ø	§J	1.5			2.5		10u					27M*			DPL	MD28a	AØ
28	40582	57m	10 Ø	§J	1.5			2.5		10u					27M*			DPL	MD28a	AØ
29	40594	57m	1.2	§A	2.0	1.0		4.0		10u*	4.0Ø	300m	70	350				PL	TO5	AØ
30	PT2620	57m	1.0	§J	1.0	400m	85	4.0	45	100m§	20Ø	350m	30	100 #	700M§	7.5		PL	TO5	
31	PT2620A	57m	1.0	§J	1.0	400m	85	4.0	45		20Ø	350m	30	100 #		7.5			TO5	AØ
32	PT2640	57m	1.0	§J	1.0	400m	85	4.0	45	50m§	20Ø	350m	30	100 #	400M§	7.5		PL	TO5	
33	PT2660	57m	1.0	§J	1.2		70	4.0	40	1.0u§	12Ø	100m	20	150				PL	TO39	
34	PT2670†	57m	1.0	§J	1.0		100	4.0	60	1.0uØ	20Ø	350m	20	100 #	170M§				TO5	
35	PT3502	57m	10 Ø	§J	750m		60	3.0	40	100uØ	20Ø	50	15	100 #				PL	MT59	R
36	PT3503	57m	10 Ø	§J	750m		40	3.0	25	100uØ	12Ø	50m	15	100 #				PL	MT59	R
37	S708*	57m	10 Ø	§J	800m		55	3.5	30	40uΔ♦					800M§	5.0		PE		
38	SD1120	57m	10 Ø	§A	1.0		40	3.5	30	100uΔ					1.2G§	2.0		PE	MT66	R
39	TRS25X	57m	10 Ø	§A	1.0	500m	300	12	250	100u	10Ø	20m	1.6k	30k	50MØΔ				TO5	
40	TRS30X	57m	10 Ø	§A	1.0	500m	400	12	300	100u	10Ø	20m	2.5k	32k	50MØΔ				TO5	
41	TRS35X	57m	10 Ø	§A	1.0	500m	450	12	350	100u	10Ø	20m	1.6k	30k	50MØΔ				TO5	
42	TRS3742	57m	2.0	§	1.0	500m	300	7.0	300	200n	10	30m	20	200	50M				MD14	
43	TRS4926	57m	2.0	§	1.0	500m	200	7.0	200	100n	10	30m	20	200	50M				MD14	
44	TRS4927	57m	2.0	§	1.0	500m	250	7.0	250	100n	10	30m	20	200	50M				MD14	
45	B3538	58m	10 Ø	§C	600m		60	5.0	40	2.0m	1.0Ø	150m	20	120	40M§Δ	2.0		PE	MT27	
46	B3539	58m	10 Ø	§C	600m		120	5.0	70	1.0uØ		150mØ	20	120	50M§Δ	4.0		PE	MT27	
47	B3540	58m	10 Ø	§C	600m		60	5.0	40	1.0uØ		150mØ	20	60		2.0		PE	MT27	
48	B3541	58m	10 Ø	§C	600m		60	5.0	40	1.0uØ		150mØ	40	120		2.0		PE	MT27	
49	B3542	58m	10 Ø	§C	600m		60	5.0	40	1.0uØ		150mØ	100			2.0		PE	MT27	
50	B3543	58m	10 Ø	§C	600m		80	5.0	60	1.0uØ		150mØ	20	60		3.0		PE	MT27	
51	B3544	58m	10 Ø	§C	600m		80	5.0	60	1.0uØ		150mØ	40	120		3.0		PE	MT27	
52	B3545	58m	10 Ø	§C	600m		80	5.0	60	1.0uØ		150mØ	100			3.0		PE	MT27	
53	B3546	58m	10 Ø	§C	600m		120	5.0	80	2.0uØ		150mØ	20	60		4.0		PE	MT27	
54	B3568	58m	10 Ø	§C	600m		120	5.0	80	2.0uØ		150mØ	40	120	50M§Δ	4.0		PE	MT27	
55	B3569	58m	10 Ø	§C	600m		120	5.0	80	2.0uØ		150mØ	100		50M§Δ	4.0		PE	MT27	
56#	82T2	60m	9.0	§J	1.0			4.0	50 §	1.0uØ	2.0Ø	500m	10		2.5M§Δ	1.0		PE	TO60	A
57▼	40666	62m	11 Ø	§J	500m		65	4.0	40	100uΔ					500M§	4.0		E	TO60	AØ
58♦	A247	62m	11 Ø	§J			40	4.0	20		5.0Ø	2.0	10		350M§			PE	MT72e	R
59	2N4440	65m	11 Ø	§J	1.5	200m	65	4.0	40	100uΔ♦	5.0Ø	125m	10	200	400M§Δ	4.0			TO60	A
60	2N1068†	66m	10 Ø	§A	1.5	500m	60	12	30	500u	4.0Ø	750m	15	75	1.5Mt	2.6	1.6u	D	TO8	AØ
61	2N2201	66m	2.0	§C	1.0	500m	120	10	100	50u	6.8Ø	200m	25	90 #	10M§Δ				MD14	AØ
62	2N2202	66m	1.0	§C	1.0	500m	120	10	100	50u	6.8Ø	200m	25	90 #	10M§Δ				R45	A
63	2N2203	66m	1.0	§C	1.0	500m	120	10	100	50u	6.8Ø	200m	25	90 #	10M§Δ				R46	A
64	2N2204	66m	1.0	§C	1.0	500m	120	10	100	50u	6.8Ø	200m	25	90 #	10M§Δ				MT19	A
65♦	2N2472	66m	1.0	§C	1.0	500m	120	10	100	10uΔ	10Ø	200m	30	90 #	10M§Δ				MD14	A
66	2N2611	66m	2.0	§J			120	10	100	50u	10Ø	200m	12	36	20Mt	8.5		ME	MD14	
67	2N3016	66m§	3.3 Ø	§J	2.5	500m	100	4.0	50	100nØ	5.0Ø	1.0	60						R81	
68	2N3017	66m§	3.3 Ø	§J	5.0	1.0	100	4.0	50	100nØ	5.0Ø	1.0	60						MT27	
69	2N3375	66m	11	§C	1.5	200m	65	4.0	40	100uΔ	5.0Ø	250m	10	100	350M§Δ	4.0			TO60	
70	JAN2N3375	66m	2.6	§J	1.5		65	4.0	40	200ut Ø	5.0Ø	150m	15	150 #	350M§Δ				MT31	
71	2N3589	66m	2.0	§C	500m	250m	200	10	200 §	1.0uØ	8.0Ø	200m	30	90 #	15M§Δ				MD14	
72	2N3590	66m	2.0	§C	500m	250m	200	10	200 §	1.0uØ	8.0Ø	200m	75	150 #	15M§Δ				MD14	
73	2N3591	66m	1.0	§C	500m	250m	200	10	200 §	1.0uØ	8.0Ø	200m	30	90 #	15M§Δ				R46	
74	2N3592	66m	1.0	§C	500m	250m	200	10	200 §	1.0uØ	8.0Ø	200m	75	150 #	15M§Δ				R46	
75	2N3861	66m	2.0	§J	25m	50m	530	5.0	530 #	100u	4.0Ø	25m	30	200	50M§Δ	60			MD14	
76	2N3926	66m	12 Ø	§S	1.5		36	4.0	18	100uØ					250M§Δ				TO60	
77	2N4012	66m	11 Ø	§J	1.0	200m	65	4.0	40	100uΔ	5.0Ø	1.0	6.0	60	350M§Δ	4.0			TO60	A
78	2N4271	66m§	5.0 Ø	§C	1.0	500m	175	8.0	140	50nØ	10Ø	200m	20	140 #	20M§Δ				TO5	AØ
79	2N4272	66m§	5.0 Ø	§C	2.5	1.5	175	9.0	140	100nØ	10Ø	1.0	20	140 #	10M§Δ				TO5	AØ
80	2N4305†	66m	1.5	§J	5.0	2.5	120	6.0	80	10u#	2.0Ø	1.0	50	150 #			90m		TO5	AØ
81	2N4307†	66m	1.5	§J	5.0	2.5	100	6.0	60	10u#	2.0Ø	1.0	50	150 #			90m		TO5	A
82	2N4309†	66m	1.5	§J	5.0	2.5	120	6.0	80	10u#	2.0Ø	1.0	50	150 #			90m		TO5	A
83	2N4311†	66m	1.5	§J	5.0	2.5	100	6.0	60	10u#	2.0Ø	1.0	40	120 #			90m		TO5	AØ
84	JAN2N4440	66m	2.6	§J	1.5		65	4.0	40	200ut Ø	5.0Ø	150m	15	150 #	350M§Δ				MT31	F
85▼	2N5729†	66m	10 Ø#	§J	10	2.0	100	5.0	80	1.0m§	2.0Ø	2.0	30	300 #	30M§		200n	PE	TO5	AØ
86▼#	2SC522O†	66m	10 Ø	§J	1.5	1.5 Ø	140	5.0	100	1.0uØ	2.0Ø	200m	50	150	60M§	300m	130nØ	DPL	MD29	AØ
87▼#	2SC522R†	66m	10 Ø	§J	1.5	1.5 Ø	140	5.0	100	1.0uØ	2.0Ø	200m	30	90	60M§	300m	130nØ	DPL	MD29	AØ
88▼#	2SC523O†	66m	10 Ø	§J	1.5	1.5 Ø	120	5.0	80	1.0uØ	2.0Ø	200m	50	150	60M§	300m	130nØ	DPL	MD29	AØ
89▼#	2SC523R†	66m	10 Ø	§J	1.5	1.5 Ø	120	5.0	80	1.0uØ	2.0Ø	200m	30	90	60M§	300m	130nØ	DPL	MD29	AØ
90#	2SC524	66m	10 Ø	§J	1.5	500m	100	5.0	60	3.0uØ	2.0Ø	200m	30	150	50M§			PL	MD29	
91▼#	2SC524O†	66m	10 Ø	§J	1.5	1.5 Ø	100	5.0	60	1.0uØ	2.0Ø	200m	50	150	60M§	300m	130nØ	DPL	MD29	AØ
92▼#	2SC524R†	66m	10 Ø	§J	1.5	1.5 Ø	100	5.0	60	1.0uØ	2.0Ø	200m	30	90	60M§	300m	130nØ	DPL	MD29	AØ
93#	2SC525	66m	10 Ø	§J	1.5	500m	70	5.0	40	3.0uØ	2.0Ø	200m	30	150	50M§			PL	MD29	
94▼#	2SC525O†	66m	10 Ø	§J	1.5	1.5 Ø	70	5.0	40	1.0uØ	2.0Ø	200m	50	150	60M§	300m	130nØ	DPL	MD29	AØ
95▼#	2SC525R†	66m	10 Ø	§J	1.5	1.5 Ø	70	5.0	40	1.0uØ	2.0Ø	200m	30	90	60M§	300m	130nØ	DPL	MD29	AØ
96#	2SC542	66m	11 Ø	§J	1.5		65	4.0	40	5.0uØ	4.0Ø	500m	25 Ø		450M§			PE	TO60	A
97#	2SC549	66m	10 Ø	§J	1.5		65	4.0	40	100u#	30Ø	150m	10		400M§	2.0		PE	TO60	
98#	2SC550	66m	10 Ø	§J	1.5		36	4.0	18	100u#	3.0Ø	150m	30		400M§	4.0		PE	TO60	
99#	2SC598	66m	10 Ø	§J	1.5		65	4.0	40	5.0uØ	28Ø	100m	30 †		400M§	2.0		PE	MT68	A
100#	2SC635	66m	10 Ø	§J	1.5		65	4.0	40	3.0uØ	10Ø	500m	20	200	500M§			PE	TO60	
101#	2SC637	66m	10 Ø	§J	1.0		40	4.0	20	10uØ	14Ø	500m	20 #		500M§			PE	MT68	AØ
102#	2SC697	66m	10 Ø	§J	3.0	600m	100	5.0	60	3.0uØ	2.0	100mΔ	30	173	35M§Δ	400m		PE	TO37	Ø
103#	2SC697A	66m	10 Ø	§J	3.0	600m	130	5.0	80	3.0uØ	2.0	100mΔ	30	173	35M§Δ	400m		PE	TO37	Ø
104▼#	2SC799	66m	10 Ø	§J	3.0 #		80	5.0	40	1.0uØ	10Ø	150m	50	90 #	150M§Δ	600m		PE	TO5	AØ
105#	2SD182	66m	10 Ø	§J	1.0		40	12	30	15uØ	4.0Ø	750m	15	120	1.5Mt			D	TO8	
106#	2SD183	66m	10 Ø	§J	1.0		100	12	55	15uØ	4.0Ø	750m	15	120	1.5Mt			D	TO8	
107	2849-1†	66m	1.0	§S	3.0		100	5.0	80	100n§	1.0Ø	1.0	100 #		30M§Δ				TO5	Ø
108	2849-3†	66m	1.5	§S	3.0		100	5.0	80	100n§	1.0Ø	1.0	100 #		30M§Δ				MT32	Ø
109	2850-1†	66m	1.0	§A	3.0		100	5.0	80	100n§	1.0Ø	500m	50 Ø		40M§			PL	TO5	AØ
110	2850-3†	66m	1.5	§A	3.0		100	5.0	80	100n§	1.0Ø	500m	50 Ø		40M§			PL	MT32	AØ

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MAX TYPE	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUCTURE	DWG. No.	LEAD CONFIG
1	2851-1†	66m	1.0	§A	3.0		100	5.0	80	100n§	1.0Ø	500m	50 Ø		60M§			PL	TO5	AØ
2	2851-3†	66m	1.5	§A	3.0		100	5.0	80	100n§	1.0Ø	500m	50 Ø		60M§			PL	MT32	AØ
3	2852-1†	66m	1.0	§A	3.0		100	5.0	80	100n§	1.0Ø	500m	25 Ø		30M§			PL	TO5	AØ
4	2852-3†	66m	1.5	§A	3.0		100	5.0	80	100n§	1.0Ø	500m	25 Ø		30M§			PL	MT32	AØ
5	2853-1†	66m	1.0	§A	3.0		60	5.0	40	100n§	1.0Ø	1.0 Δ	85 Ø	#	40M§			PL	TO5	AØ
6	2853-3†	66m	1.5	§A	3.0		60	5.0	40	100n§	1.0Ø	1.0 Δ	85 Ø	#	40M§			PL	MT32	AØ
7	2854-1†	66m	1.0	§A	3.0		60	5.0	40	100n§	1.0Ø	500m	90 Ø		50M§			PL	TO5	AØ
8	2854-3†	66m	1.5	§A	3.0		60	5.0	40	100n§	1.0Ø	500m	90 Ø		50M§			PL	MT32	AØ
9	2855-1†	66m	1.0	§A	3.0		60	5.0	40	100n§	1.0Ø	500m	50 Ø		40M§			PL	TO5	AØ
10	2855-3†	66m	1.5	§A	3.0		60	5.0	40	100n§	1.0Ø	500m	50 Ø		40M§			PL	MT32	AØ
11	2856-1†	66m	1.0	§A	3.0		60	5.0	40	100n§	1.0Ø	500m	25 Ø		30M§			PL	TO5	AØ
12	2856-3†	66m	1.5	§A	3.0		60	5.0	40	100n§	1.0Ø	500m	25 Ø		30M§			PL	MT32	AØ
13	40279†	66m	12 Ø	§J	1.5		65	4.0	40	100nØ	5.0Ø	150m	10			2.0		PE	TO60	AØ
14	40281†	66m	12 Ø	§J	1.0		36	4.0	18	100uΔ					400M§			PE	TO60	AØ
15	40291	66m	11 Ø	§J	500m			4.0	50 #*	100uΔ					500M§			PE	TO60	AØ
16	40306	66m	11 Ø	§J	1.5		65	4.0	40	100nΔØ	5.0Ø	150m	10					PE	TO60	A
17	40346	66m	1.0	§J	1.0	500m			175 §	5.0uΔØ	10Ø	10m	25		10M§Δ	50		DΔ	TO5	AØ
18	40346V2	66m	10 Ø	§J	1.0	500m			175 §	5.0uΔØ	10Ø	10m	25		10M§Δ	50		DΔ	MD34	AØ
19	40347V2	66m	12 Ø	§J	1.5	500m	60	7.0	40	1.0u*	4.0Ø	450m	20	80		2.2		D	MD34	AØ
20	40348V2	66m	12 Ø	§J	1.5	500m	90	7.0	65	1.0u*	4.0Ø	300m	30	100		2.5		D	MD34	AØ
21	40349V2	66m	12 Ø	§J	1.5	500m	160	7.0	140	1.0u*	4.0Ø	150m	25	100		3.3		D	MD34	AØ
22	40412	66m	1.0	§J	1.0	500m			250 §	1.0m*Ø	20Ø	30m	40		10M§Δ	50		DΔ	TO5	AØ
23	40412V2	66m	10 Ø	§J	1.0	500m			250 §	1.0m*Ø	20Ø	30m	40		10M§Δ			DΔ	MD34	AØ
24	A201	66m	11	§J	1.0		36	4.0	18	100uΔ					400M§			PE	TO60	A
25	B3570	66m	10 Ø§	§C	5.0		80	8.0	40	1.0uØ		1.0 Ø	20	60	30M§	500m		PE	MT27	
26	B3571	66m	10 Ø§	§C	5.0		100	8.0	80	1.0uØ		1.0 Ø	20	60	30M§	500m		PE	MT27	
27	B3572	66m	10 Ø§	§C	5.0		80	8.0	40	1.0uØ		1.0 Ø	40	120	30M§	500m		PE	MT27	
28	B3573	66m	10 Ø§	§C	5.0		100	8.0	80	1.0uØ		1.0 Ø	40	120	30M§	500m		PE	MT27	
29	B3574	66m	10 Ø§	§C	5.0		80	8.0	40	1.0uØ		1.0 Ø	100		30M§	500m		PE	MT27	
30	B3575	66m	10 Ø§	§C	5.0		100	8.0	80	1.0uØ		1.0	100		30M§	500m		PE	MT27	
31	B3576	66m	10 Ø§	§C	5.0		60	5.0	40	1.0uØ		1.0	20	60	30M§	500m		PE	MT27	
32	B143000	66m	5.0	§J	5.0	1.0	50	5.0	40	1.0m§	10Ø	3.0	45	90			2.0u	Δ	TO5	AØ
33	B143001	66m	5.0	§J	5.0	1.0	50	5.0	40	1.0m§	10Ø	3.0	70	140			2.0u	Δ	TO5	AØ
34	B143002	66m	5.0	§J	5.0	1.0	50	5.0	40	1.0m§	10Ø	3.0	120	240			2.0u	Δ	TO5	AØ
35	B143003	66m	5.0	§J	5.0	1.0	70	5.0	60	1.0m§	10Ø	3.0	45	90			2.0u	Δ	TO5	AØ
36	B143004	66m	5.0	§J	5.0	1.0	70	5.0	60	1.0m§	10Ø	3.0	70	140			2.0u	Δ	TO5	AØ
37	B143005	66m	5.0	§J	5.0	1.0	70	5.0	60	1.0m§	10Ø	3.0	120	240			2.0u	Δ	TO5	AØ
38	B143006	66m	5.0	§J	5.0	1.0	90	5.0	80	1.0m§	10Ø	3.0	45	90			2.0u	Δ	TO5	AØ
39	B143007	66m	5.0	§J	5.0	1.0	90	5.0	80	1.0m§	10Ø	3.0	70	140			2.0u	Δ	TO5	AØ
40	B143008	66m	5.0	§J	5.0	1.0	90	5.0	80	1.0m§	10Ø	3.0	120	240			2.0u	Δ	TO5	AØ
41	B143009	66m	5.0	§J	5.0	1.0	50	5.0	40	1.0m§							2.0u	Δ	TO5	AØ
42	B143010	66m	5.0	§J	5.0	1.0	50	5.0	40	1.0m§							2.0u	Δ	TO5	AØ
43	B143011	66m	5.0	§J	5.0	1.0	70	5.0	60	1.0m§							2.0u	Δ	TO5	AØ
44	B143012	66m	5.0	§J	5.0	1.0	70	5.0	60	1.0m§							2.0u	Δ	TO5	AØ
45	B143013	66m	5.0	§J	5.0	1.0	90	5.0	80	1.0m§							2.0u	Δ	TO5	AØ
46	B143014	66m	5.0	§J	5.0	1.0	90	5.0	80	1.0m§							2.0u	Δ	TO5	AØ
47	B143015	66m	5.0	§J	5.0	1.0	50	5.0	40	1.0m§	10Ø	3.0	45	90			2.0u	Δ	MT27	
48	B143016	66m	5.0	§J	5.0	1.0	50	5.0	40	1.0m§	10Ø	3.0	70	140			2.0u	Δ	MT27	
49	B143017	66m	5.0	§J	5.0	1.0	50	5.0	40	1.0m§	10Ø	3.0	120	240			2.0u	Δ	MT27	
50	B143018	66m	5.0	§J	5.0	1.0	70	5.0	60	1.0m§	10Ø	3.0	45	90			2.0u	Δ	MT27	
51	B143019	66m	5.0	§J	5.0	1.0	70	5.0	60	1.0m§	10Ø	3.0	70	140			2.0u	Δ	MT27	
52	B143020	66m	5.0	§J	5.0	1.0	70	5.0	60	1.0m§	10Ø	3.0	120	240			2.0u	Δ	MT27	
53	B143021	66m	5.0	§J	5.0	1.0	90	5.0	80	1.0m§	10Ø	3.0	45	90			2.0u	Δ	MT27	
54	B143022	66m	5.0	§J	5.0	1.0	90	5.0	80	1.0m§	10Ø	3.0	70	140			2.0u	Δ	MT27	
55	B143023	66m	5.0	§J	5.0	1.0	90	5.0	80	1.0m§	10Ø	3.0	120	240			2.0u	Δ	MT27	
56	B143024	66m	5.0	§J	5.0	1.0	50	5.0	40	1.0m§							2.0u	Δ	MT27	
57	B143025	66m	5.0	§J	5.0	1.0	50	5.0	40	1.0m§							2.0u	Δ	MT27	
58	B143026	66m	5.0	§J	5.0	1.0	70	5.0	60	1.0m§							2.0u	Δ	MT27	
59	B143027	66m	5.0	§J	5.0	1.0	70	5.0	60	1.0m§							2.0u	Δ	MT27	
60	B143028	66m	5.0	§J	5.0	1.0	90	5.0	80	1.0m§							2.0u	Δ	MT27	
61	B143029	66m	5.0	§J	5.0	1.0	90	5.0	80	1.0m§							2.0u	Δ	MT27	
62#	BD115	66m	6.0 Ø	§J	150m	30m	220	5.0			20Ø	50m	20	35 Ø	65M§				TO39	AØ
63#	BLY22	66m	12 Ø	§J	1.5		65	4.0	40	100uΔ					500M§			PL	MT31a	
64	BR100B§	66m	7.5 Ø	§J	5.0	1.0	60	3.0	40	1.0mØ	5.0Ø	3.0	40	200 #	300M§				MT27	AØ
65	BR101B§	66m	7.5 Ø	§J	5.0	1.0	90	3.0	75	1.0mØ	5.0Ø	3.0	30	150 #	300M§				MT27	AØ
66	MJ400	66m	2.5	§J	250m	200m	350	5.0	325	1.0mΔØ	10Ø	50m	30	300	15M§Δ				TO66	CØ
67	MSP5405	66m	2.0	§A	400m	200m	650	5.0	540	10u	10Ø	100m	20		50M§Δ	60		DM	MD14	
68	MSP6605	66m	2.0	§A	400m	200m	800	5.0	660	10u	10Ø	100m	20		50M§	60		DM	MD14	
69	TRS25X5	66m	2.0	§J	1.0	500m	300	12	250	100u	10Ø	20m	1.6k	30k	50kΔØ				MD14	
70	TRS30X5	66m	2.0	§J	1.0	500m	400	12	300	100u	10Ø	20m	2.5k	32k	50kΔØ				MD14	
71	TRS35X5	66m	2.0	§J	1.0	500m	450	12	350	100u	10Ø	20m	1.6k	30k	50kΔØ				MD14	
72	TRS1005	66m	2.0	§J	400m	50m	100	6.0	100 §	3.0uØ	4.0Ø	50m	30 Ø		50k§	30			MD14	
73	TRS1205	66m	2.0	§J	400m	50m	120	6.0	120 §	3.0uØ	4.0Ø	50m	30 Ø		50k§	30			MD14	
74	TRS1405	66m	2.0	§J	400m	50m	140	6.0	140 §	3.0uØ	4.0Ø	50m	30 Ø		50k§	30			MD14	
75	TRS1605	66m	2.0	§J	400m	50m	160	6.0	160 §	3.0uØ	4.0Ø	50m	30 Ø		50k§	30			MD14	
76	TRS1805	66m	2.0	§J	400m	50m	180	6.0	180 §	3.0uØ	4.0Ø	50m	30 Ø		50k§	30			MD14	
77	TRS2005	66m	2.0	§J	400m	50m	200	6.0	200 §	2.0uØ	4.0Ø	50m	20 Ø		50k§	38			MD14	
78	TRS2255	66m	2.0	§J	400m	50m	225	6.0	225 §	3.0uØ	4.0Ø	50m	22 Ø		50k§	36			MD14	
79	TRS2505	66m	2.0	§J	400m	50m	250	6.0	250 §	2.0uØ	4.0Ø	50m	20 Ø		50k§	38			MD14	
80	TRS2755	66m	2.0	§J	400m	50m	275	6.0	275 §	3.0uØ	4.0Ø	50m	20 Ø		50k§	38			MD14	
81	TRS2805S	66m	2.0	§A	400m		340	5.0	280	2.0uØ	8.0Ø	200m	25	45 Ø	50M§Δ	30		DM	MD14	
82	TRS3015	66m	2.0	§A	400m		300	6.0	300 §	2.0uØ	4.0Ø	50M	22 Ø		50k§	36			MD14	
83	TRS3205S	66m	2.0	§A	400m		385	5.0	320	2.0uØ	8.0Ø	200m	25	45 Ø	50M§Δ	30		DM	MD14	
84	TRS3255	66m	2.0	§J	400m	50m	325	6.0	325 §	3.0uØ	4.0Ø	50m	30 #		50M§	30			MD14	
85	TRS3505	66m	2.0	§A			350	6.0	350 §	2.0uØ	4.0Ø	50m	22 Ø		50k§	36			MD14	
86	TRS3605S	66m	2.0	§A	400m		420	5.0	360	2.0uØ	8.0Ø	200m	25	45 Ø	50M§Δ	30		DM	MD14	
87	TRS3755	66m	2.0	§J	400m	50m	375	6.0	375 §	3.0uØ	4.0Ø	50m	20 #		50M§	38			MD14	
88	TRS4005	66m	2.0	§A			400	6.0	400 §	2.0uØ	4.0Ø	50m	30 #	65 Ø	50M§	30			MD14	
89	TRS4015	66m	2.0	§J	400m	50m	400	6.0	400 §	2.0uØ	4.0Ø	50m	22 Ø		50k§	36			MD14	
90	TRS4015S	66m	2.0	§A	400m		480	5.0	400	10uØ	10Ø	100m	20	30 Ø	50M§Δ	60		DM	MD14	
91	TRS4255	66m	2.0	§J	400m	50m	425	6.0	425 §	3.0uØ	4.0Ø	50m	30 Ø		50k§	30			MD14	
92	TRS4505	66m	2.0	§A			450	6.0	450 §	2.0uØ	4.0Ø	50m	22 Ø		50k§	36			MD14	
93	TRS4755	66m	2.0	§J	400m	50m	475	6.0	475 §	2.0uØ	4.0Ø	50m	30 #		50M§	30			MD14	
94	TRS4805S	66m	2.0	§A	400m		580	5.0	480	10uØ	10Ø	100m	20	30 Ø	50M§Δ	60		DM	MD14	
95	TRS5015	66m	2.0	§A	400m		500	6.0	500 §	2.0uØ	5.0Ø	50m	22 Ø		50k§	30			MD14	
96	TRS5205S	66m	2.0	§A	400m		625	5.0	520	10uØ	10Ø	100m	20	30 Ø	50M§Δ	60		DM	MD14	
97	TRS5255	66m	2.0	§J	400m	50m	525	6.0	525 §	2.0uØ	5.0Ø	25m	22 Ø		50k§	72			MD14	
98	TRS5405S	66m	2.0	§A	400m		650	5.0	540	10uØ	10Ø	100m	20	30 Ø	50M§Δ	60		DM	MD14	
99	TRS5505	66m	2.0	§A	400m		550	6.0	550 §	10uØ	5.0Ø	25m	30	65 Ø	50M§Δ				MD14	
100	TRS5755	66m	2.0	§J	400m	50m	575	6.0	575 §	2.0uØ	5.0Ø	25m	22 Ø		50k§	72			MD14	
101	TRS5805S	66m	2.0	§A	400m		700	5.0	580	10uØ	10Ø	100m	20	30 Ø	50M§Δ	60		DM	MD14	
102	TRS6015	66m	2.0	§A	400m		600	6.0	600 §	10uØ	5.0Ø	25m	20	60 Ø	50M§Δ			DM	MD14	
103	TRS6205S	66m	2.0	§A	400m		750	5.0	620	10uØ	10Ø	100m	20	30 Ø	50M§Δ	60		DM	MD14	
104	TRS6505	66m	2.0	§A			650	6.0	650 §	10uØ	5.0Ø	25m	25 #		50M§	60			MD14	
105	TRS6605S	66m	2.0	§A	400m		800	5.0	660	10uØ	10Ø	100m	20	30 Ø	50M§Δ	60		DM	MD14	
106	TRS7015	66m	2.0	§A			700	6.0	700 §	10uØ	5.0Ø	25m	25 #		50M§	60			MD14	
107	TRS7015S	66m	2.0	§A	400m		850	5.0	700	10uØ	10Ø	100m	20	30 Ø	50M§Δ	60		DM	MD14	
108	TRS7505	66m	2.0	§A			750	6.0	750 §	10uØ	5.0Ø	25m	25 #		50M§	60			MD14	
109	TRS8015	66m	2.0	§A			800		800 §	10uØ	5.0Ø	25m	25 #		50M§	60			MD14	
110	VX3375	66m	12 Ø	§J	1.5		65	4.0	40	100uΔØ			40 Ø		600M§	2.0		PE	X48	

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	ZT3375	66m	11	§J	1.5	200m	65	4.0	40	5.0m#	5.0	250m	5.0	50	400M§△	4.0		PE	TO60	
2	2N1085	67m		§J	2.0	.20	60	5.0	50	50m	5.0	.50	40	120	10k†	6.0			TO5	
3	3TE467	67m						4.0	28	1.0m	5.0Ø	100	10	200	600M§△			PE		
4	2N5423	68m	12 Ø	§C	2.0	1.0	36	4.0	18	1.0uØ	5.0Ø	1.0	20	70	300M§	500m			TO60	AØ
5	2N5645	68m	12 Ø	§S	1.0		36	4.0	18	500uØ	5.0Ø	500m	15		400M§△				MT72h	R
6#	2SC891	68m	10 Ø	§J	600m		40	4.0	20	5.0uØ	10Ø	500m	15 #		600M§△			PE	MT59d	SØ
7#	2SC959	71mØ	9.0 Ø	§J	700m		120	5.0	80	3.0uØ	5.0Ø	200m	30 #	100 #				PE	TO5	
8♦	A208	71m	5.0 Ø	§J	1.0 #		40		25	3.0n	5.0Ø	150m	65 Ø		1.5G§			PE	MT71a	R
9	D28D11†	72mØ	1.0 #	§S	1.0			5.0	25	100n§	2.0Ø	100m	50	150	85M§	1.0	25nØ	†	X51	F
10	D28D2†	72mØ	1.0 #	§S	1.0			5.0	25	100n§	2.0Ø	100m	120	360	85M§	1.0	25nØ	†	X51	F
11	D28D3†	72mØ	1.0 #	§S	1.0			5.0	25	100n§	2.0Ø	100m	290	350 Ø	85M§	1.0	25nØ	†	X51	F
12	D28D4†	72mØ	1.0 #	§S	1.0			5.0	40	100n§	2.0Ø	100m	50	150	85M§	1.0	25nØ	†	X51	F
13	D28D5†	72mØ	1.0 #	§S	1.0			5.0	40	100n§	2.0Ø	100m	120	360	85M§	1.0	25nØ	†	X51	F
14	D28D7†	72mØ	1.0 #	§S	1.0			5.0	60	100n§	2.0Ø	100m	50	150	85M§	1.0	25nØ	†	X51	F
15	D28D10†	72mØ	1.0 #	§S	1.0			5.0	75	100n§	2.0Ø	100m	50	150	85M§	1.0	25nØ	†	X51	F
16	MPSU01	72m	1.0	†J	1.5				30	100n	1.0Ø	150m	70		50M§△	1.0		ANt	X81	A
17	PT2610	74m	13 Ø	§J	1.0	400m	100	4.0	60		20Ø	350m	20	100 #	600M§	1.6		PL	TO5	
18	PT2630	74m	1.0	§J	1.0		100	4.0	60		20Ø	350m	20	100		1.6		PL	TO5	
19	JAN2N2034†	75m	1.0	§A	3.0		80	10	60	20u#	4.0Ø	1.0	20	60 #	1.0M§△		3.0uØØ		TO5	AØ
20	JAN2N2858†	75m	1.0	§A	3.0		100	10	80	20u#	4.0Ø	1.0	20	60 #	1.0M§△		3.0uØØ		TO5	AØ
21	JAN2N2859†	75m	1.0	§A	3.0		120	10	100	20u#	4.0Ø	1.0	20	60 #	1.0M§△		3.0uØØ		TO5	AØ
22	JAN2N2911†	75m	1.0	§A	3.0		150	10	125	20u#	4.0Ø	1.0	20	60 #	1.0M§△		3.0uØØ		TO5	AØ
23	ST74049	75m	7.5 Ø	§J	2.0		125	10	80	10u	10	1.0	20	120	10M	380m	1.0u	PE	TO5	
24	ST74050	75m	7.5 Ø	§J	2.0		145	10	100	10u	10	1.0	20	120	10M	380m	1.0u	PE	TO5	
25	ST74051	75m	7.5 Ø	§J	2.0		170	10	120	10u	10	1.0	20	120	10M	380m	1.0u	PE	TO5	
26#	2SC515	76m	6.0 §	§J	100m		300	3.0	300	100uØ	10Ø	50m△	30	150	20M§			ME	TO66	
27#	BD106	76m	12 Ø	§J	2.5		36	5.0		50nØ	2.0Ø	500m	50	300 *	100k§			PE	MD6h	CØ
28#	BD106A	76m	12 Ø	§J	2.5		36	5.0	36	500nØ	2.0Ø	500m	50	150	100M§	400m		PE	MD6g	AØ
29#	BD106B	76m	12 Ø	§J	2.5		36	5.0	36	500nØ	2.0Ø	500m	100	300	100M§	400m		PE	MD6g	AØ
30#	BD107	76m	12 Ø	§J	2.5		64	5.0		50nØ	2.0Ø	500m	50	300 *	100k§			PE	MD6h	CØ
31#	BD107A	76m	12 Ø	§J	2.5		64	5.0	64	500nØ	2.0Ø	500m	50	150	100M§	400m		PE	MD6g	AØ
32#	BD107B	76m	12 Ø	§J	2.5		64	5.0	64	500nØ	2.0Ø	500m	100	300	100M§	400m		PE	MD6g	AØ
33#	BDY15A	76m	12 Ø	§J	2.5 #		36	5.0	36 *	100nØ	2.0Ø	500m	50	150	100M§	400m		PE	MD23b	AØ
34#	BDY15B	76m	12 Ø	§J	2.5 #		36	5.0	36 *	100nØ	2.0Ø	500m	100	300	100M§	400m		PE	MD23b	AØ
35#	BDY15C	76m	12 Ø	§J	2.5 #		36	5.0	36 *	100nØ	2.0Ø	500m	200	600	100M§	400m		PE	MD23b	AØ
36#	BDY16A	76m	12 Ø	§J	2.5 #		64	5.0	64	100nØ	2.0Ø	500m	50	150	100M§	400m		PE	MD23b	AØ
37#	BDY16B	76m	12 Ø	§J	2.5 #		64	5.0	64	100nØ	2.0Ø	500m	100	300	100M§	400m		PE	MD23b	AØ
38#	BLY15A	76m	12 Ø	§J	2.0		64	3.0	64	1.0uØ	10Ø	500m	20		180M§			PE	MD6g	AØ
39#	2SC355	80m	15 Ø	§J	2.5		75	4.0		1.0uØ	4.0Ø	500m	100 Ø		180M§			PL	TO60	
40#	2SC893	80m	12 Ø	§J	300m		100	6.0	60	1.0u	4.0Ø	50m	50	370	20M§			ME	MD29	AØ
41#	FT027	80m	13 Ø	§C	1.0		60	6.0	40	100u	15Ø	25m	20	40 Ø	60M§	12		ME	TO8	
42	MSP60A	80m	12	§J	1.0 #	400m	600	5.0	600 §	10uØ	10Ø	100m	30	200	30M§	2.0		DM	MD14	
43	MSP70A	80m	12	§J	1.0 #	400m	700	5.0	700 §	10uØ	10Ø	100m	30	200	30M§	2.0		DM	MD14	
44	SE7020	80m	10 Ø	§J	400m		300	5.0	300	10u	10Ø	50m	40	240 #	30M§			DPL	TO66	CØ
45#	SFT440	80m	12 Ø	§S	1.0		80	4.0	80	10uØ	10Ø	100m	10	50 Ø	200M§	2.4			TO60	
46#	SFT443A	80m	12 Ø	§S			80	4.0	80	10uØ	10Ø	100m	15	40 Ø	180M§	1.8			TO60	
47	2N5589	86m	15 Ø	§S	600m		36	4.0	18	1.0mØ	5.0Ø	100m	5.0		200M§△				MT71c	R
48#	2SC22	86m	13 Ø	§J	600m		75	5.0	50	2.0mØ	10Ø	150m	20	100 #	110M§	2.4		PE	TO8	
49#	2SC23	86m	13 Ø	§J	500m		75	5.0	50	5.0mØ	10Ø	150m	20	100 #	110M§	2.4		PE	TO8	
50#	2SC24	86m	12 Ø	§J	500m		100	5.0	70	5.0mØ	10Ø	150m	20	100 #	110M§	2.4		PE	TO8	
51#	2SC592	86m	13 Ø	§J	2.5	400m	75	4.0	50	1.0uØ	4.0Ø	500m	25	100	180M§			DPL	TO60	
52	A253	86m	10 Ø	§J	1.5	4.0 Ø	36	4.0	18		5.0Ø	500m	10	50 Ø	800M§	1.0		PL	MT59h	R
53#	BLY37	86m			3.0 #		65	4.0	36		5.0Ø	1.0 Ø	50 Ø		700M§	500m		PL	MT59e	S
54#	BLY53	86m	10	§J	3.0 #		36	4.0	18		5.0Ø	1.0 Ø	50 Ø		700M§	1.0		PL	MT59e	S
55	PT600	86m	13 Ø	§J	2.0		60	4.0	45 §	1.0uØ	12Ø	1.0	15	45 #	210M§	2.0		PL	TO8	A
56	PT601	86m	13 Ø	§J	2.0		60	4.0	45 §	1.0uØ	12Ø	1.0	30	90 #	210M§	2.0		PL	TO8	A
57	PT612	86m	2.0	§J	2.0		75	5.0	60 §	500uØ	28Ø	350m	7.5	75	60M§△			PL	TO8	A
58	A271	90m	16 Ø	§J	750m		65	4.0	36	5.0m△	5.0Ø	500m	5.0		500M§	1.0		PE	MT72c	R
59	A275	90m	16 Ø	§J	1.2		36	4.0	18	5.0m△	5.0Ø	500m	5.0		700M§	1.0		PE	MT72c	
60#	BLY87	91m	16 Ø	§J	1.2		36	4.0	18	5.0m△	5.0Ø	500m	5.0		700M§	1.0			MT72	GCØ
61▼	BLY91	91m	16	§J	2.2 #		65	4.0	36	5.0m△	5.0Ø	500m	5.0 †		500M§			PE		
62	JAN2N1072†	100m	2.0	J	2.0 Ø		75	6.0	75 Ø	100nØ	5.0Ø	750m	20		70M§	2.7	100nØ	D△	TO38	A
63	2N1709	100m	15 Ø	§J	2.0		75	4.0	60 §	10uØ	28Ø	350m	7.5	75 #	150M§△	5.0		PL	TO8	A
64	2N1710	100m	15 Ø	§J	2.0		60	3.0	45 §	50uØ	28Ø	350m	7.5	75 #	120M§△	5.0		PL	TO8	A
65	2N2631	100m	8.8 Ø	§J	1.5		80	4.0	60	100nØ					200M§			PL	TO39	AØ
66	2N2697	100m	18 Ø	§J	5.0	500m	80	8.0	60	100nØ	2.0Ø	1.0	40	120 #	20M§△	500m	80nØ	PL	MT9	
67	2N2698	100m	18 Ø	§J	5.0	500m	100	8.0	80	100nØ	2.0Ø	1.0	40	120 #	20M§△	500m	80n	PL	MT9	
68	2N2781	100m	15 Ø	§J	2.0		75	5.0	75 §	500uØ	28Ø	350m	7.5	75 #	140M§△	5.0		PL	TO8	A
69	2N2782	100m	15 Ø	§J	2.0		100	5.0	100 §	500uØ	28Ø	350m	7.5	75 #	140M§△	5.0		PL	TO8	A
70	2N2783	100m	15 Ø	§J	2.0		100	5.0	100 §	500uØ	28Ø	350m	7.5	75 #	140M§△	5.0		PL	TO8	A
71	2N2874	100m	15 Ø	§J	2.0		75	4.0	75 §	10uØ	28Ø	350m	7.5	75 #	140M§△	5.0		PL	TO8	A
72	JAN2N2876	100m	18 Ø	§J	2.5		80	4.0	60	100nØ	10Ø	300m	30	150 #	150M§△	400m			MT31	
73	2N3229	100m	17 Ø	§J	2.5		105	4.0	60	1.0uØ	1.0	2.5	5.0		200M§	400m		DPL	MT31	
74	2N4040	100m	18 Ø	§C	1.0	300m	60	4.0	40	200uØ	5.0Ø	100m	10	80	400M§△	2.0			TO117	R
75	2N4041	100m	18 Ø	§C	1.0	300m	60	4.0	40	200uØ	5.0Ø	100m	10	80	400M§△	2.0			TO117	R
76#	2SC106†	100m	15 Ø	§J	1.5	1.5 Ø	60	5.0	60 §	3.0m	12Ø	200m	7.5	20 Ø	100M§	3.0	25m	PE	TO8	
77#	2SC107†	100m	15 Ø	§J	1.0	1.0 Ø	60	5.0	60 §	3.0m	12Ø	200m	7.5	30 Ø	100M§	3.0	25m	PE	TO8	
78#	2SC692	100m	17 Ø	§J	1.0		60	4.0	40	200uØ	10Ø	100m	5.0		400M§			PE	MT59b	GE
79#	2SD79	100m$	15 Ø	§J	2.0	1.0	100	12	60	1.0uØ	2.0Ø	500mØ	40	160				PE	MD32	
80#	2SD141	100m	15 Ø	§J	3.0	500m	20	5.0	12	100uØ	2.0Ø	1.0	30	240 #		300m		PE	MD10	
81#	2SD142	100m	15 Ø	§J	3.0	500m	40	5.0	20	100uØ	2.0Ø	1.0	30	240 #		300m		PE	MD10	
82#	2SD152	100m	15 Ø	§J	1.0	500m	150	6.0	70	100uØ	2.0	500m	30	70 Ø		1.5		PE	MD10	
83	40491	100m#	3.8 Ø	§A	150m	150mØ	300	2.0	300	100u	10Ø	50mØ	30	250	25M§				TO66	
84#	BDY34†	100m*	13 Ø	§J	3.0		60	5.0	40	100u	20Ø	2.0	30	300	80M§△	400m	500nØ	PE	MD17b	CØ
85#	BLY14	100m	8.7	ØJ	1.0	200m	80	4.0	80 Ø	5.0u	10	500m	11 †		190M§			PE	MT55	
86#	BLY20	100m#	14 Ø	§J	2.0 #	200m	45	4.0	30		10Ø	500m△	5.0		200M§	2.0	30n#	PE	TO60	
87#	BLY21	100m#	14 Ø	§J	2.0 #	200m	70	4.0	45		10Ø	500m△	5.0		200M§	2.0	30n#	PE	TO60	
88	MHT4551	100m	18 Ø	§J	5.0	500m	80	8.0	40	1.0uØ	2.0Ø	1.0	20	60 #	30M§	500m	80n	PL	MT9	
89	MHT4552	100m	18 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	20	60 #	30M§	500m	80nØ	PL	MT9	
90	MHT4553	100m	18 Ø	§J	5.0	500m	80	8.0	40	1.0uØ	2.0Ø	1.0	40	120 #	30M§	500m	80nØ	PL	MT9	
91	MHT4554	100m	18 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	40	120 #	30M§	500m	80nØ	PL	MT9	
92	MHT4555	100m	18 Ø	§J	5.0	500m	80	8.0	40	1.0uØ	2.0Ø	1.0	100 #		30M§	500m	80nØ	PL	MT9	
93	MHT4556	100m	18 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	100 #		30M§	500m	80nØ	PL	MT9	
94	MHT4583	100m	18 Ø	§J	5.0	500m	60	5.0	40	1.0uØ	5.0Ø	1.0	20	60	30M§	500m	80nØ	PL	MT9	
95	MJ3201	100m	15	§J	.10		225	3.0	225	.10m	10Ø	.05	30 #	200 #	15M§△	100			TO66	CØ
96	MJ3202	100m	15	§J	100m		300	3.0	300	100u	10Ø	50m	30	200 #	15M§△	100			TO66	Ø
97	MSP10A	100mØ	4.0	§A	2.0	500m	100	5.0	100 §	10u	10Ø	100m	25		30M	15		DM	MD14	
98	MSP15A	100mØ	4.0	§A	2.0	500m	150	5.0	150 §	10u	10Ø	100m	25		30M	15		DM	MD14	
99	MSP20A	100mØ	4.0	§A	2.0	500m	200	5.0	200 §	10u	10Ø	100m	25		30M	15		DM	MD14	
100	MSP25A	100mØ	4.0	§A	2.0	500m	250	5.0	250 §	10u	10Ø	100m	25		30M	15		DM	MD14	
101	MSP30A	100mØ	4.0	§A	2.0	500m	300	5.0	300 §	10u	10Ø	100m	25		30M	15		DM	MD14	
102	MSP35A	100mØ	4.0	§A	2.0	500m	350	5.0	350 §	10u	10Ø	100m	25		30M	15		DM	MD14	
103	MSP40A	100mØ	4.0	§A	2.0	500m	400	5.0	400 §	10u	10Ø	100m	25		30M	15		DM	MD14	
104	MSP45A	100mØ	4.0	§A	2.0	500m	450	5.0	450 §	10u	10Ø	100m	25		30M	15		DM	MD14	
105	MSP50A	100mØ	4.0	§A	2.0	500m	500	5.0	500 §	10u	10Ø	100m	25		30M	15		DM	MD14	
106	MSP55A	100mØ	4.0	§A	2.0	500m	550	5.0	550 §	10u	10Ø	100m	25		30M	15		DM	MD14	
107	PT4690	100m	17 Ø	§J	1.5		60	3.0	40	200uØ	20Ø	50	15	100 #				PL	MT59	R
108	S550	100m	11	§J	1.5		65	4.0	40	5.0m#	5.0Ø	250m	10	100	700M§△	4.0		PE		
109	S552	100m	11	§J	1.5		65	4.0	40	5.0m#	5.0Ø	250m	10	100	900M§△	4.0		PE		
110	S800	100m	17	§J	2.5		60	4.0	40	100uØ	5.0Ø	100m	150		200M§			PE	TO60	

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DESCRIPTION DWG. No.	L C E O A D D E
1	S801	100m	17	§J	2.5		60	4.0	45	100uØ	5.0Ø	100m	50		200M§			PE	TO60	
2	S939†	100m	17	§J							1.5Ø	100m	15						TO39	
3	S1000	100m	17	§J	1.0		40	4.0	30	2.0m#	5.0Ø	100n	20		1.2G§			PE	MT66	
4	SE7006	100m	12 Ø	$J	500m		150	5.0	150	10uΔ	10Ø	10m	30 #	80 Ø	60M§			DPL	TO66	C⍁
5	ST91054	100m	10 Ø	§J	5.0		125	10	80	20u	10	2.0	20	120	10M	450m	1.5u	PE	TO5	
6	ST91055	100m	10 Ø	§J	5.0		145	10	100	20u	10	2.0	20	120	10M	450m	1.5u	PE	TO5	
7	ST91056	100m	10 Ø	§J	5.0		170	10	120	20u	10	2.0	20	120	10M	450m	1.5u	PE	TO5	
8	STC1800	100m	18 Ø	§J	2.5		60	6.0	40	15u	4.0Ø	300m	20	80	2.5M†	5.0	900n	D	TO37	CØ
9	STC1850	100m	18 Ø	§J	3.0		80	6.0	60		4.0Ø	1.0	15	60	3.0M†	750m	900n	DΔ	TO37	
10	STC1860	100m	17	§J	3.0	1.0	90	7.0	55	1.0m#Ø	4.0Ø	500m	25	100		2.0		D	TO37	Ø
11	STC1861	100m	17	§J	3.0	1.0	160	7.0	140	5.0mØ	4.0Ø	500m	20	80		2.0		D	TO37	Ø
12	STC1862	100m	17	§J	3.0	1.0	50	5.0	40	1.0mØ	4.0Ø	1.5	25	100		1.0		D	TO37	Ø
13	STT2400	100m$	10 Ø	§J	7.5	1.0	150	12	150	1.0u§	15Ø	2.0	30	90 #	25M§			DPLΔ	TO5	A
14	STT2401	100m$	10 Ø	§J	7.5	1.0	140	12	120	1.0u§	15Ø	2.0	30	90 #	25M§			DPLΔ	TO5	A
15	STT2402	100m$	10 Ø	§J	7.5	1.0	140	12	120	1.0u§	15Ø	2.0	50	150 #	25M§			DPLΔ	TO5	A
16	STT2403	100m$	10 Ø	§J	7.5	1.0	120	12	100	1.0u§	15Ø	2.0	30	90 #	25M§			DPLΔ	TO5	A
17	STT2404	100m$	10 Ø	§J	7.5	1.0	100	12	80	1.0u§	15Ø	2.0	30	90 #	25M§			DPLΔ	TO5	A
18	STT2405	100m$	10 Ø	§J	7.5	1.0	75	10	60	1.0u§	15Ø	2.0	30	90 #	25M§			DPLΔ	TO5	A
19	STT2406	100m$	10 Ø	§J	7.5	1.0	40	10	30	500u§	15Ø	2.0	25 #		25M§			DPLΔ	TO5	A
20	2N4431	108m	18 Ø	§J	2.0	1.0	55	3.5	40	4.0m#	5.0Ø	100m	20	200	600M§				TO66	V
21#	BD128†	111m	16 Ø	§J	150m	50m	400	7.0	350	200uØ	20Ø	50m	30	50 Ø	20M§	160	500n	ME	MD17b	CØ
22#	BD129	111m	16 Ø	§J	150m	50m	350	5.0	350	1.0u	20Ø	50m	40	60 Ø	10M§Δ	200		ME	MD17b	CØ
23#	2SC599	113m	17 Ø	§J	1.2		70	4.0	40	5.0uØ	28Ø	100m	40 †		350M§			PL	MT59b	GE
24	2N5424	114m	20 Ø	§C	4.0	2.0	36	4.0	18	1.0uØ	5.0Ø	2.0	20	100	250M§	250m			TO60	A⍁
25	2N5598	114m	20	§J	2.0	1.0	80	6.0	60	1.0m#	5.0Ø	1.0	70	200 #	60M§Δ				TO66	CØ
26	2N5600	114m	20	§J	2.0	1.0	100	6.0	80	1.0m#	5.0Ø	1.0	30	90 #	50M§Δ				TO66	CØ
27	2N5602	114m	20	§J	2.0	1.0	100	6.0	80	1.0m#	5.0Ø	1.0	70	200 #	60M§Δ				TO66	CØ
28	2N5604	114m	20	§J	2.0	1.0	120	6.0	100	1.0m#	5.0Ø	1.0	30	90 #	50M§Δ				TO66	CØ
29#	2SC688	114m	20 Ø	§J	1.5		60	4.0	40	500uØ	10Ø	100m	5.0		300M§			PE	MT59b	GE
30#	2SC737	114m	20 Ø	§J	1.5		60	4.0	40	500uØ	10Ø	100m	5.0		300M§			PE	MT59b	GE
31	PT2600	114m	1.0	§J	1.0	400m	100	4.0	100 §	100u§	40Ø	300mØ	20	100 #				D	MT40	
32#	ZT2887	114m	20 Ø	§J	1.2	400m	100	4.0	100 Ø	500u§	25Ø	400m	15 #	100 #	420MΔ§	1.2		PL	MT59	R
33♦	2N5483	115m	20 Ø	§S	700m	200m	45 †	3.0†	30	6.0m	5.0Ø	100m	20	250					MT74	R
34#	2SC892	117mØ	17 Ø	§J	1.2		40	4.0	20	10uØ	10Ø	1.0	15 #		400M§Δ			PE	MT59d	S⍁
35	2N5595	120m	20 Ø	§S	1.2	500m	55	3.5	30	4.0mØ	5.0Ø	50m	20		1.5G§Δ				MT73a	R
36#	2SC487	120m	15 Ø	$J	1.5	1.5 Ø	110	5.0	110 §	120uØ	2.0Ø	200m	40	250	20M†	400m		DM	TO66	AØ
37#	2SC491	120m	15 Ø	$J	1.5	1.5 Ø	50	5.0	35	10uØ	2.0Ø	500m	30	250 *	30M§	1.0		DM	TO66	CØ
38#	2SC791	120m	15 Ø	$J	1.5	1.5 Ø	90	5.0	90 §	120uØ	2.0Ø	200m	40	250	20M†	1.4		DM	TO66	CØ
39#	2SD150	120mØ	15 Ø	§J	1.0	500m	50	5.0	40	1.0m	2.0Ø	1.0	30	240	10k§Δ			PE	MD10a	
40	MSA8505	120m	21 Ø	§J	3.0			4.0	33	5.0m§♦	5.0Ø	1.0	10 #		435M†	1.0		DPE	MT72a	R
41	2N3138	125m	20 Ø	§S	2.0	200m	65	1.0	65	100uØ	10Ø	1.0	10		10M§Δ				MT24	
42	2N3139	125m	20 Ø	§S	2.0	200m	140	1.0	140	100uØ	10Ø	1.0	10		10M§Δ				MT24	
43	2N3140	125m	20 Ø	§S	2.0	200m	65	1.0	65	100uØ	10Ø	1.0	10		10M§Δ				MT24	
44	2N3141	125m	20 Ø	§S	2.0	200m	140	1.0	140	100uØ	10Ø	1.0	10		10M§Δ				MT24	
45	MJ2251	125m⍁	10 Ø	$J	500m			6.0	225	100uØ	10Ø	50m	25	200	10M§Δ				TO66	CØ
46	MJ2252	125m⍁	10 Ø	$J	500m			6.0	300	100uØ	10Ø	50m	25	200	10M§Δ				TO66	CØ
47	ST15008	125m$	125 Ø	§J	40	8.0	125	12	80	10u	5.0Ø	40	10		10M§Δ	60m		PE	TO63	
48	2N3927	128m	23 Ø	§S	3.0		36	4.0	18	250uØ					200M§Δ				TO60	AØ
49#	2SC488	128m	16 Ø	$J	3.0		140	5.0	110	3.0mØ	5.0Ø	500mΔ	80 †		10M§			DM	TO66	
50#	2SC489	128m	16 Ø	$J	3.0	3.0 Ø	100	5.0	80	120uØ	5.0Ø	500m	20	200 *	10M§	500m		DM	TO66	CØ
51#	2SC490	128m	16 Ø	$J	3.0	3.0 Ø	60	5.0	50	120uØ	5.0Ø	500m	20	200 *	10M§	500m		DM	TO66	CØ
52	TIP27	129m§	2.0 Ø	§C	500m	100m	300	6.0	300	200u	10Ø	200m	25	150 #	2.0M§Δ	125		DM	X43	AØ
53	2N3632	131m	23 Ø	§C	3.0	400m	65	4.0	40	500u	5.0Ø	250m	10	150	250M§Δ	1.0			TO60	A
54	2N3733	131m	23 Ø	§C	1.0	400m	65	4.0	40	500u	5.0Ø	250m	10	150	250M§Δ	1.0			TO60	A
55	2N5215	131m	23 Ø	§C	1.0	500m	70	4.0	70	500u♦Ø	5.0Ø	500m	10	80	400M§	500m			TO60	A⍁
56#	2SC543	131m	23 Ø	§J	3.0		65	4.0	40	12uØ	4.0Ø	1.0	25 Ø		400M§			PE	TO60	A
57	40307	131m	23 Ø	§J	3.0		65	4.0	40	250nΔ	5.0Ø	300m	10					PE	TO60	A
58▼	40665	131m	23 Ø	§J	1.0		65	4.0	40	250uΔ					400M§	2.0		E	TO60	A⍁
59	VX3733	131m	23 Ø	§J	3.0		65	4.0	40	250uΔ♦					400M§	2.0		PE		
60	2N1718	133m	2.0	§J	1.0			6.0	60	50u	5.0Ø	200m	20	60	16M§	10		ME	MT13	
61	2N1719	133m	2.0	§J	1.0			6.0	100	50u	5.0Ø	200m	20	60	16M§	10		ME	MT13	
62	2N1720	133m	2.0	§J	1.0			6.0	60	50u	5.0Ø	200m	40	120	16M§	10		ME	MT13	
63	2N1721	133m	2.0	§J	1.0			6.0	100	50u	5.0Ø	200m	40	120	16M§	10		ME	MT13	
64	2N2196	133m$	2.0	§C	1.0	500m	80	8.0	60 §	75u	30Ø	10m	30 †						MD14	AØ
65	2N2197	133m$	2.0	§C	1.0	500m	80	8.0	60 §	75u	30	10m	30 †						MD14	AØ
66	2N2995	133m$	1.5	§C	1.0	500m	120	10	100	50u	30	30m	30 †	100	10M§Δ				MT20a	AØ
67	2N3327	133m	20 Ø	§S	2.0	200m	65	3.0	65	500u	10Ø	500m	10		100M§			PE	MT31	
68	2N3738	133m	20 Ø	§J	250m	500m	250	6.0	225	100u	10Ø	100mØ	40	200	10M§Δ	10			TO66	CØ
69	2N3739	133m	20 Ø	§J	250m	500m	325	6.0	300	100u	10Ø	100mØ	40	200	10M§Δ	10			TO66	CØ
70	JAN2N3739	133m	3.0	§S	3.0	1.0	325	6.0	300	100u	10Ø	100m	40	200 #	10M§Δ				TO66	CØ
71	2N3766	133m	20 Ø	§J	1.0	2.5	80	6.0	60	100u	10Ø	500m	40	160	10M§Δ	2.5			TO66	CØ
72	2N3767	133m	20 Ø	§J	1.0	2.5	100	6.0	80	100u	10Ø	500m	40	160	10M§Δ	2.5			TO66	CØ
73	2N5101	133m$	10 Ø	§A	1.0	500m	500	6.0	400	5.0mØ	10Ø	100m	15	250	50M§Δ	20			MD14	AØ
74#	2SC92	133m	20 Ø	§J	2.0		100	5.0	50	100uØ	10Ø	350m	10	100 #	190M§	2.0		PE	TO8	
75#	2SC93	133m	20 Ø	§J	2.0		80	5.0	45	100uØ	10Ø	350m	10 #	35 Ø	190M§	2.0		PE	TO8	
76#	2SC94	133m	20 Ø	§J	2.0		100	5.0	50	100uØ	10Ø	350m	10 #	35 Ø	190M§	2.0		PE	TO8	
77#	2SC551	133m	20 Ø	§J	3.0		65	4.0	40	250u#	30Ø	300m	10		350M§	2.0		PE	TO60	
78#	2SC552	133m	20 Ø	§J	3.0		36	4.0	18	250u#	30Ø	600m	10		350M§	2.0		PE	TO60	
79#	2SC553	133m	20 Ø	§J	3.0		65	4.0	40	250u#	30Ø	300m	10		400M§	2.0		PE	TO60	
80#	2SC585	133m	20 Ø	§J	3.0		65	4.0	40	12uØ	28	200mΔ	30 Ø		400M§	2.0		PE	MT68	A
81#	2SC591	133m	20 Ø	§J	1.5		100	4.0	50	1.0mØ	10Ø	150m	10	40 #	160M§	1.6		PE	TO8	
82#	2SC600	133m	20 Ø	§J	3.0		65	4.0	40	12uØ	28Ø	200m	30 †		400M§	2.0		PE	MT68	A
83#	2SC636	133m	20 Ø	§J	3.0		65	4.0	40	5.0uØ	10Ø	500m	20	200	400M§			PE	TO60	
84#	2SC638	133m	20 Ø	§J	2.0		40	4.0	20	20uØ	14Ø	1.0	20 #		400M§			PE	MT68	A⍁
85#	2SD48	133m	20 Ø	§J	3.0	1.0	100	10	55	15uØ	4.0Ø	750m	20	80	1.5M†			D	TO8	
86#	2SD146	133m	20 Ø	§J	1.0		40	5.0	35	20uØ	4.0Ø	500m	30	150 *	1.4M†	2.0		D	MD10b	
87#	2SD147	133m	20 Ø	§J	1.0		60	5.0	50	20uØ	4.0Ø	500m	20	150 *	1.4M†	2.0		D	MD10b	
88#	2SD154	133mØ	20	§J	3.0	1.0	80	5.0	60	.10mØ	2.0Ø	2.0 Ø	40	145				PE	MD10	
89#	3TE140	133m	20 Ø	§J	1.5		90	4.0	80	10uØ	5.0Ø	500m	20 #	80	275M§	330m		DE	TO3	⍁
90	40282	133m	23 Ø	§J	2.0		36	4.0	18	250uΔ					350M§			PE	TO60	A⍁
91	40292	133m	23 Ø	§J	1.2			4.0	50 #*	250uΔ					300M§			PE	TO60	AØ
92	A202	133m	23	§J	3.0		36	4.0	18	250uΔ					400M§			PE	TO60	A
93#	BD124†	133m⍁	15 Ø	§J	2.0	500m#	70	6.0	45	2.0uØ	5.0Ø	500m	35	150	60M§Δ	500m	75n	PE	MD17c	CØ
94#	BLY35	133m	17 Ø	$J	1.5			4.0	33						250M§Δ			PL	TO60	A⍁
95#	BLY36	133m	17 Ø	$J	2.0			4.0	20						250M§Δ			PL	TO60	A⍁
96	MJ2249	133m	20 Ø	§J	2.0	500m	60	6.0	60	1.0m	4.0Ø	100m	25	200 *	10M§Δ	2.5	Δ		TO66	CØ
97	MJ2250	133m	20 Ø	§J	2.0	500m	80	6.0	80	1.0m	4.0Ø	100m	25	200 *	10M§Δ	2.5	Δ		TO66	CØ
98	MJ3101	133m	20 Ø	§J	2.0	500m	50	6.0	40	1.0m	4.0Ø	100m	25	200 *	10M§Δ	3.3	Δ		TO66	CØ
99	PT665	133m	20 Ø	§J	2.0		75	4.0	60 §	10uØ	28Ø	350m	7.5	75 #	210M§			PL	MT39	
100	PT665A	133m	20 Ø	§J	2.0		100	5.0	90 §	10uØ	28Ø	350m	7.5	75 #	150M§Δ	5.0		PL	MT39	
101	TRS2006	133m	20 Ø	§	1.0	500m	200	6.0	200 §	100u	10Ø	50m	30	300	50M				TO66	
102	TRS3006	133m	20 Ø	§	1.0	500m	300	6.0	300 §	100u	10Ø	50m	30	300	50M				TO66	
103	TRS4006	133m	20 Ø	§	1.0	500m	400	6.0	400 §	100u	10Ø	50m	30	300	50M				TO66	
104	TRS4016S	133m	20 Ø	§	1.0	500m	450	6.0	400	100u	10Ø	50m	30	300	50M				TO66	
105	TRS4506	133m	20 Ø	§	1.0	500m	450	6.0	450 §	100u	10Ø	50m	30	300	50M				TO66	
106	TRS5006	133m	20 Ø	§	1.0	500m	500	6.0	500 §	100u	10Ø	20m	30	300	50M				TO66	
107	TRS6006	133m	20 Ø	§	1.0	500m	600	6.0	600 §	100u	10Ø	20m	30	300	50M				TO66	
108	TRS7006	133m	20 Ø	§	1.0	500m	700	6.0	700 §	100u	10Ø	20m	30	300	50M				TO66	
109	TRS8006	133m	20 Ø	§	1.0	500m	800	6.0	800 §	100u	10Ø	20m	30	300	50M				TO66	
110	2N122	140mØ	9.0 Ø	§J	140m		120	1.0		100u	35	100m	3.0		100k†	200		G	MS6	

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AE XM P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CONFIG.
1	2N1483	142m	25 Ø	§J	3.0	1.5	60	12	40 ☑	15uØ	4.0Ø	750m	20	60	1.2M†	2.6		D	TO8	AØ
2	JAN2N1483	142m	1.7	§J	3.0		60	12	40	15uØ	4.0Ø	750m	20	60 #	600k†Δ			Δ	TO8	AØ
3	2N1484	142m	25 Ø	§J	3.0	1.5	100	12	55 ☑	15uØ	4.0Ø	750m	20	60	1.2M†	2.6		D	TO8	AØ
4	JAN2N1484	142m	1.7	§J	3.0		100	12	55	15uØ	4.0Ø	750m	20	60 #	600k†Δ			Δ	TO8	AØ
5	2N1485	142m	25 Ø	§J	3.0	1.5	60	12	40 ☑	15uØ	4.0Ø	750m	35	100	1.2M†	1.0		D	TO8	AØ
6	JAN2N1485	142m	1.7	§J	3.0		60	12	40	15uØ	4.0Ø	750m	35	100 #	600k†Δ			Δ	TO8	AØ
7	2N1486	142m	25 Ø	§J	3.0	1.5	100	12	55 ☑	15uØ	4.0Ø	750m	35	100	1.2M†	1.0		D	TO8	AØ
8	JAN2N1486	142m	1.7	§J	3.0		100	12	55	15uØ	4.0Ø	750m	35	100 #	600k†Δ			Δ	TO8	AØ
9	2N2035	142mØ	14 Ø	§S	3.0	1.0	80	10	60	25u	4.0Ø	1.5	15	45	1.5k†	300m	1.8u	DΔ	TO8	AØ
10	2N2304	142m	25 Ø	§A	3.0	1.5	60	6.0	40	100uØ	4.0Ø	300m	20	80		3.0			TO8	AØ
11	2N2308	142m	25 Ø	§J	3.0	1.5	100	12	80	50uØ	4.0Ø	1.0	20	60	1.0M§Δ	1.0		D	TO8	AØ
12	2N2887	142m	25 Ø	§J	1.2	400m	100	4.0	80		28Ø	350m	15	80 #		1.2		PL	MT39	
13	2N3054	142m	25 Ø	§C	4.0	2.0	90	7.0	60 §	1.0m#	4.0Ø	500m	25	100	30kΔ	2.0			MD6e	AØ
14	2N3142	142m	25 Ø	§S	2.0	200m	65	1.0	65	100uØ	10Ø	1.0	10		10M§Δ				MT46	
15	2N3143	142m	25 Ø	§S	2.0	200m	140	1.0	140	100uØ	10Ø	1.0	10		10M§Δ				MT46	
16	2N3144	142m	25 Ø	§S	2.0	200m	65	1.0	65	100uØ	10Ø	1.0	10		10M§Δ				MT46	
17	2N3145	142m	25 Ø	§S	2.0	200m	140	1.0	140	100uØ	10Ø	1.0	10		10M§Δ				MT46	
18	2N3226	142m	75 Ø	§C	5.0	2.6	35	6.0	35	200u#	3.0Ø	2.0	20	50	30k§Δ	500m			TO3	CØ
19♦	2N3441	142m	25 Ø	§C	3.0	2.0	160	7.0†	140 §	100mΔ	4.0Ø	500m	25	100		2.2			TO66	CØ
20	JAN2N3441	142m	2.5	§J	3.0	2.0	160	7.0	140	1.0mØ	4.0Ø	500m	20	80 #		2.0			TO66	CØ
21	2N3442	142m	25 Ø	§C	10	7.0	160	7.0	140 *	200mΔ	4.0Ø	3.0	20	70		2.2			TO3	CØ
22	2N4127	142m	25 Ø	§A	2.0	500m	60 †	4.0†	40	500uØ	5.0Ø	200m	10	80	300M§Δ	1.0			MT59	GE
23	2N4910	142m	25 Ø	§J	1.0	1.0	40	5.0	40	100u	1.0Ø	500m	20	100 #	3.0MΔ				TO66	CØ
24	2N4911	142m	25 Ø	§J	1.0	1.0	60	5.0	60	100u	1.0Ø	500m	20	100 #	3.0MΔ				TO66	CØ
25	2N4912	142m	25 Ø	§J	1.0	1.0	80	5.0	80	100u	1.0Ø	500m	20	100 #	3.0MΔ				TO66	CØ
26	2N5216	142m	25 Ø	§C	1.5	400m	80	4.0	80	100u♦Ø	5.0Ø	500m	10	60	350M§	800m			MT62b	FØ
27#	2SC297	142m	10 Ø	§J	3.0	600m	70	5.0	40	3.0uØ	2.0Ø	1.0	25	52	90M§	400m	60n	PE	TO37	
28#	2SC298	142m	10 Ø	§J	3.0	600m	100	5.0	60	3.0uØ	2.0Ø	100m	30	173	90M§	400m	60n	PE	TO37	
29#	2SC299	142m	10 Ø	§J	3.0	600m	130	5.0	80	3.0uØ	2.0Ø	100m	30	173	90M§	400m	60n	PE	TO37	
30#	2SC703	142m	25 Ø	§J	2.0		40	4.0	20	1.0mØ	10Ø	100m	5.0		150M§			PE	MT59b	GE
31#	2SC916†	142mØ	2.0	§J	2.0		100	6.0	70	5.0uØ	1.0Ø	400mØ	40	120			60nØ☑	PE	TO8	
32	40368	142m	25 Ø	§J	3.0	1.5	100	12	55	9.0uØ	4.0Ø	750m	35	100					TO8	AØ
33#	BD109	142m	15	§J	2.0	50m	60	5.0	40	100nØ			20	120	50M§Δ			PE	MD6b	
34	D27C1	142m☑	1.0 #	§S	3.0			5.0	40	10u§	1.0Ø	1.0	20			1.0		†	X51	B
35	D27C2	142m☑	1.0 #	§S	3.0			5.0	40	100u§	1.0Ø	1.0	10			1.0		†	X51	B
36	D27C3	142m☑	1.0 #	§S	3.0			5.0	30	10u§	1.0Ø	1.0	20			1.0		†	X51	B
37	D27C4	142m☑	1.0 #	§S	3.0			5.0	30	100u§	1.0Ø	1.0	10			1.0		†	X51	B
38#	DT3301	142m	15	§J	5.7	2.0	60	8.0	60 §	10u	5.0	500m	25	100	1.0M§	500m		D	TO66	
39#	DT3302	142m	15	§J	5.7	2.0	100	8.0	100 §	10u	5.0	500m	25	100	1.0M§	500m		D	TO66	
40	MHT4611	142m§	14 Ø	§J			60	8.0	40	1.0u		1.0	20	60	40M§				TO8	
41	MHT4612	142m§	14 Ø	§J			80	8.0	60	1.0uØ		1.0	20	60	40M§				TO8	
42	MHT4613	142m§	14 Ø	§J			100	8.0	80	1.0uØ		1.0	20	60	40M§				TO8	
43	MHT4614	142m§	14 Ø	§J			60	8.0	40	1.0u		1.0	40	120	60M§				TO8	
44	MHT4615	142m§	14 Ø	§J			80	8.0	60	1.0uØ		1.0	40	120	60M§				TO8	
45	MHT4616	142m§	14 Ø	§J			100	8.0	80	1.0uØ		1.0	40	120	60M§				TO8	
46	MHT4617	142m§	14 Ø	§J			60	8.0	40	1.0u		1.0	100		70M§				TO8	
47	MHT4618	142m§	14 Ø	§J			80	8.0	60	1.0uØ		1.0	100		70M§				TO8	
48	MHT4619	142m§	14 Ø	§J			100	8.0	80	1.0uØ		1.0	100		70M§				TO8	
49	MJ4101	142m	25 Ø	§J			50	5.0	40			1.5	25	100	4.0M§Δ	670m			TO66	
50	MSA7505	142m	25 Ø	§J	3.0			4.0	33	5.0m§♦	5.0Ø	1.0	10 #		435M†	1.0		DPE	TO60	AØ
51	PT2635†	142m	2.5	§J	1.2		100	4.0	60	1.0mØ	28Ø	350m	15 #		170M§				TO5	
52	S1050	142m	25	§J	2.0		45	3.5	30	2.0m#	5.0Ø	500m	20		1.2G§			PE		
53	STC4401	142m	25 Ø	§J	4.0	2.0	50	5.0	40	1.0mØ	4.0Ø	1.5	25	100 #		100m		D	TO66	Ø
54#	ZT1483	142m	25 Ø♦	§C	3.0	1.5	60	12	60 #	15uØ	4.0Ø	750	20	60		2.7	1.0u	D	TO8	Ø
55#	ZT1484	142m	25 Ø♦	§C	3.0	1.5	100	12	100 #	15uØ	4.0Ø	750	20	60		2.7	1.0u	D	TO8	Ø
56#	ZT1485	142m	25 Ø♦	§C	3.0	1.5	60	12	60 #	15uØ	4.0Ø	750	35	100		1.0	1.0u	D	TO8	Ø
57#	ZT1486	142m	25 Ø♦	§C	3.0	1.5	100	12	100 #	15uØ	4.0Ø	750	35	100		1.0	1.0u	D	TO8	Ø
58#	ZT1701	142m	25 Ø♦	§C	2.5	1.0	60	6.0	40	100uØ	4.0Ø	300m	20	80	1.0M†	5.0	1.2uØ	D	TO8	Ø
59#	ZT3441	142m	25 Ø	§S	3.0	2.0	160	7.0	140	5.0m#	4.0Ø	500m	20	80	200k§Δ	2.0		DΔ	TO66	Ø
60	2N1701	143m	25 Ø	§J	2.5	1.0	60	6.0	40 ☑	100uØ	4.0Ø	300m	20	80	350k†Δ	5.0		Δ	TO8	AØ
61	2N2339	143m		§J	2.5	1.0	60	6.0	40	.10mØ	4.0Ø	.30	20	80	1.0M†	5.0	1.0u	D	MT5	
62	2N2525	143m	25 Ø		1.0	.40	100	5.0	100 Ø		28Ø	.35	10			.80		PL	MT39	
63	2N5606	143m	25	§J	5.0	2.0	80	6.0	60	1.0m#	5.0Ø	2.5	70	200 #	70M§Δ				TO66	CØ
64	2N5608	143m	25	§J	5.0	2.0	100	6.0	80	1.0m#	5.0Ø	2.5	30	90 #	60M§Δ				TO66	CØ
65	2N5610	143m	25	§J	5.0	2.0	100	6.0	80	1.0m#	5.0Ø	2.5	70	200 #	70M§Δ				TO66	CØ
66	2N5612	143m	25	§J	5.0	2.0	120	6.0	100	1.0m#	5.0Ø	2.5	30	90 #	60M§Δ				TO66	CØ
67▼	2N5689	143m	25 Ø	§S	3.0		60 †	3.0†	40	1.0mΔ	10Ø	100m	15						TO117	R
68▼	2N5704	143m	25 Ø	§S	2.0		36	3.0	18	1.0mΔ	5.0Ø	50m	15						TO117	R
69	STC1201	143m		§	3.0		100	12	100	15uØ	.50Ø	.50	20		2.5M†	1.0	.90u			CØ
70#	2SC867	144m	18 Ø	§J	1.0		520	10	180	50uØ	3.0Ø	100m	20	350	8.5M§			DM	MD17	
71#	2SC895	144m	18 Ø	§J	2.5		380	8.0	90	50uØ	3.0Ø	100m	20	350	20M§			DM	MD17	
72	2N4000†	149m	1.0	§J	1.0	500m	100	8.0	80	2.0u§	2.0Ø	500m	30	120 #	40M§Δ		300nØ		TO5	AØ
73	2N4001†	149m	1.0	§J	1.0	500m	120	8.0	100	2.0u§	2.0Ø	500m	40	120 #	40M§Δ		300nØ		TO5	AØ
74	2N4300	149m§	15 Ø	§J	2.0	1.0	100	8.0	80	10u§	2.0Ø	1.0	30	120 #	30M§Δ				TO5	AØ
75	2N5487†	149m§	15 Ø	§J	5.0	1.0	120	8.0	80	10u#	2.0Ø	1.0	100	300 #	40M§Δ		125nØ		R113	AØ
76	2N5488†	149m§	15 Ø	§J	5.0	1.0	150	8.0	100	10u#	2.0Ø	1.0	40	120 #	40M§Δ		125nØ		R113	AØ
77♦	2N5552	150m§	15 Ø	§J	10	2.0	120 †	7.0†	80	200n§	2.0Ø	500m	40	250 #	30M§Δ		100nØ		R113	AØ
78▼	2N5662†	150m	1.2	§C	3.0	200m	250	6.0	200	200n	5.0	1.0	15		20M	400m	150nØ	PL	TO5	
79▼	2N5663†	150m	1.2	§C	3.0	200m	400	6.0	300	200n	5.0	1.0	15		20M	400m	150nØ	PL	TO5	
80▼	2N5666†	150m	1.2	§C	10	600m	250	6.0	200	200n	5.0	3.0	15		20M	130m	200nØ	PL	TO5	
81▼	2N5667†	150m	1.2	§C	10	600m	400	6.0	300	200n	5.0	3.0	15		20M	130m	200nØ	PL	TO5	
82	TI486†	150m	1.0	§C	1.0		80	6.0	60	3.0u§	5.0Ø	200m	20	80 #	50M§			DPL	TO5	AØ
83	TI487†	150m	2.0	§C	1.0		80	6.0	60	3.0u§	5.0Ø	200m	20	80 #	50M§			DPL	MT13	AØ
84	2N5487-1†	154m	1.2		5.0	1.0	120	8.0	80	.10u§	5.0Ø	5.0	25		40M§	2.0	.45u†	PE	TO5	
85	2N5487-3†	154m	1.5		5.0	1.0	120	8.0	80	.10u§	5.0Ø	5.0	25		40M§	2.0	.45u†	PE	MT32	
86	2N5488-1†	154m	1.2		5.0	1.0	150	8.0	100	.10u§	5.0Ø	5.0	15		40M§	2.0	.55u†	PE	TO5	
87	2N5488-3†	154m	1.5		5.0	1.0	150	8.0	100	.10u§	5.0Ø	5.0	15		40M§	2.0	.55u†	PE	MT32	
88	2N5552-4†	154m	1.5		10	2.0	120	8.0	80	.20u§	5.0Ø	10	30		25M§	1.0	.70u†	PE	MT20	
89	2N4864	160m§	16 Ø	§J	2.0	500m	140	8.0	120	100nØ	5.0Ø	500m	50	150 #	50M§Δ	500m			TO66	CØ
90#	2SC50	160m	20 Ø	§J	4.0		180	5.0		120uØ	5.0Ø	4.0	40 Ø		60M§			DM	TO66	
91#	2SC508	160m	20 Ø	§J	4.0	4.0 Ø	180	5.0	180 Ø	120uØ	5.0Ø	4.0	20	40 Ø	25M†	500m		DM	TO66	CØ
92#	2SC779	160m	20	§J	2.0	1.0	300	6.0	250	100uØ	10Ø	100m	30	80 Ø				ME	TO66	
93#	2SC782	160m	20 Ø	§J	1.5	1.5 Ø	300	5.0	300	100uØ	10Ø	100m	30	250	10M§	1.8		DM	TO66	CØ
94#	2SC783	160m	20 Ø	§J	1.5	1.5 Ø	200	5.0	200	100u	10Ø	100m	30	250	10M§	1.8		DM	TO66	CØ
95#	2SC840	160m	20 Ø	§J	2.0	1.0 #	100	5.0	60	5.0m	3.0Ø	1.0	30		50M§	750m		DM	TO66	CØ
96#	2SC840A	160m	20 Ø	§J	2.0	1.0 #	150	5.0	100	5.0mØ	3.0Ø	1.0	30		50M§	750m		DM	TO66	CØ
97#	2SC990	160mØ	24 Ø	§J	2.0		50	4.0	25	10uØ	10Ø	1.0	15	200 #	300M§Δ			PE	MT66a	GJ
98#	2SD57	160m	20 Ø	§J	3.0	1.0	30	10	20	200uØ	4.0Ø	1.0	20	180	3.5M†			D	MD17	CØ
99#	2SD58	160m	20 Ø	§J	3.0	1.0	60	10	40	40uØ	4.0Ø	1.0	20	180	3.5M†			D	MD17	CØ
100#	2SD90†	160m	20		3.0	1.0	30	10	20	2.0m	4.0Ø	1.0	20	40 Ø	5.0M†	500m	1.0u	D	TO9	
101#	2SD91†	160m	20		3.0	1.0	60	10	40	2.0m	4.0Ø	1.0	20	40 Ø	5.0M†	500m	1.0u	D	TO9	
102#	2SD92†	160m	20		3.0	1.0	100	10	55	2.0m	4.0Ø	1.0	20	40 Ø	5.0M†	500m	1.0u	D	TO9	
103#	2SD93†	160m	20		3.0	1.0	150	10	70	2.0m	4.0Ø	1.0	20	40 Ø	5.0M†	500m	1.0u	D	TO9	
104#	2SD94†	160m	20		3.0	1.0	200	10	80	2.0m	4.0Ø	1.0	20	40 Ø	5.0M†	500m	1.0u	D	TO9	
105	2N2947	166m	25 Ø	§C	1.5	500m	60	3.0	60 Ø	1.0uØ	2.0Ø	400m	2.5	55 #	100M§Δ	500m			TO3	CØ
106	2N2948	166m	25 Ø	§C	1.5	500m	40	2.0	40 Ø	1.0uØ	2.0Ø	400m	2.5	100 #	100M§Δ	500m			TO3	CØ
107	2N3297	166m	25 Ø	§J	1.5	500m	60	3.0	40 Ø	1.0uØ	2.0Ø	400m	2.5	35	100M§Δ	500m			TO3	C
108	2N3818	166m	25 Ø	§J	1.0	1.0	60	4.0	60 Ø	1.0uØ	2.0Ø	400m	5.0	50	150M§Δ				TO60	A
109	2N4273	166m	25 Ø	§C	2.5	1.5	175	9.0	140	100nØ	10Ø	1.0	20	140 #	10M§Δ				TO66	AØ
110#	2SD184†	166m	25 Ø	§J	1.5		60	12	40	10uØ	4.0Ø	750m	20	100	1.5M†	2.0	500n§	ME	TO8	

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	2SD185†	166m	25 Ø	§J	1.5		100	12	55	10uØ	4.0Ø	750m	20	100	1.5M†	1.0	500n§	ME	TO8	
2	1571-32	166m	29 Ø	§C	4.0	2.0	80	7.0	80	1.0m#	4.0Ø	500m	25		30k§Δ	2.0			TO66	
3	1571-33	166m	29 Ø	§C	4.0	2.0	100	7.0	100	1.0m#	4.0Ø	500m	25		30k§Δ	2.0			TO66	
4	1571-34	166m	29 Ø	§C	4.0	2.0	120	7.0	120	1.0m#	4.0Ø	500m	25		30k§Δ	2.0			TO66	
5	1571-35	166m	29 Ø	§C	4.0	2.0	140	7.0	140	1.0m#	4.0Ø	500m	25		30k§Δ	2.0			TO66	
6	1571-36	166m	29 Ø	§C	4.0	2.0	160	7.0	160	1.0m#	4.0Ø	500m	25		30k§Δ	2.0			TO66	
7	1571-41	166m	29 Ø	§C	4.0	2.0	60	7.0	60	1.0m#	4.0Ø	500m	20		30k§Δ	2.0			TO66	
8	1571-42	166m	29 Ø	§C	4.0	2.0	80	7.0	80	1.0m#	4.0Ø	500m	20		30k§Δ	2.0			TO66	
9	1571-43	166m	29 Ø	§C	4.0	2.0	100	7.0	100	1.0m#	4.0Ø	500m	20		30k§Δ	2.0			TO66	
10	1571-44	166m	29 Ø	§C	4.0	2.0	120	7.0	120	1.0m#	4.0Ø	500m	20		30k§Δ	2.0			TO66	
11	1571-46	166m	29 Ø	§C	4.0	2.0	160	7.0	160	1.0m#	4.0Ø	500m	20		30k§Δ	2.0			TO66	
12	40250	166m	29 Ø	§J	4.0	2.0	50	5.0	40	1.0mØ	4.0Ø	1.5	25	100	1.0M§	1.0		D	TO66	CØ
13	40310	166m	29 Ø	§J	4.0	2.0		2.5	35	10uØ	2.0Ø	1.0	20	120	750k§			D	TO66	CØ
14	40312	166m	29 Ø	§J	4.0	2.0		2.5	60 §	10uØ	2.0Ø	1.0	20	120	750k§			D	TO66	CØ
15	40316	166m	29 Ø	§J	4.0	2.0			40 §	10uØ	2.0Ø	1.0	20	120	750k§			D	TO66	CØ
16	40324	166m	29 Ø	§J	4.0	2.0			35	10uØ	2.0Ø	1.0	20	120	750k§			D	TO66	CØ
17	A272	166m	29 Ø	§J	1.5		65	4.0	36	10mΔ	5.0Ø	500m	5.0		500M§	600m		PE	MT72c	R
18	A276	166m	29 Ø	§J	2.5		36	4.0	18	10mΔ	5.0Ø	500m	5.0		700M§	600m		PE	MT72c	
19#	BLY88	166m	29 Ø	§J	2.5		36	4.0	18	10mΔ	5.0Ø	500m	5.0		700M§	600m			MT72	GCØ
20▼	BLY92	166m	29	§J	4.5 #		65	4.0	36	10mΔ	5.0Ø	500m	5.0 †		500M§			PE		
21	MHT5901	166m§	16 Ø	§J	2.0	500m	60	8.0	40	100nØ	2.0	500m	50	150 #	50M§Δ	700m		PL	TO66	CØ
22	MHT5902	166m§	16 Ø	§J	2.0	500m	80	8.0	60	100nØ	2.0	500m	50	150 #	50M§Δ	700m		PL	TO66	CØ
23	MHT5903	166m§	16 Ø	§J	2.0	500m	100	8.0	80	100nØ	2.0	500m	50	150 #	50M§Δ	700m		PL	TO66	CØ
24	MHT5904	166m§	16 Ø	§J	2.0	500m	140	8.0	100	100nØ	2.0	500m	50	150 #	50M§Δ	700m		PL	TO66	CØ
25	MHT5905	166m§	16 Ø	§J	2.0	500m	180	8.0	120	100nØ	2.0	500m	50	150 #	50M§Δ	700m		PL	TO66	CØ
26	MHT5906	166m§	16 Ø	§J	2.0	500m	60	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	TO66	CØ
27	MHT5907	166m§	16 Ø	§J	2.0	500m	80	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	TO66	CØ
28	MHT5908	166m§	16 Ø	§J	2.0	500m	100	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	TO66	CØ
29	MHT5909	166m§	16 Ø	§J	2.0	500m	140	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	TO66	CØ
30	MHT5910	166m§	16 Ø	§J	2.0	500m	180	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	TO66	CØ
31	MHT5911	166m§	16 Ø	§J	2.0	500m	60	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO66	CØ
32	MHT5912	166m§	16 Ø	§J	2.0	500m	80	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO66	CØ
33	MHT5913	166m§	16 Ø	§J	2.0	500m	100	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO66	CØ
34	MHT5914	166m§	16 Ø	§J	2.0	500m	140	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO66	CØ
35	MHT5915	166m§	16 Ø	§J	2.0	500m	180	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO66	CØ
36♦	MJE340	166m	20 Ø	§J	500m			3.0	300	100u	10Ø	50m	30	240					X58	B
37	SDT5954	166m§	16 Ø	§J	2.0	500m	175	8.0		100nØ	2.0Ø	500m	30	150 #	50M§Δ			PL	TO66	
38	SDT5955	166m§	16 Ø	§J	2.0	500m	200	8.0		100nØ	2.0Ø	500m	30	150 #	50M§Δ			PL	TO66	
39	SDT5956	166m§	16 Ø	§J	2.0	500m	225	8.0		100nØ	2.0Ø	500m	30	150 #	50M§Δ			PL	TO66	
40#	BD131	167mØ	11	♦J	4.0	.50	70	6.0	45	.00mØ	5.0Ø	.50	35	75 Ø	60M§Δ			PE	X58	
41	SDT5951	167m§	16 Ø§	J	2.0	.50	175	8.0		.10uØ	2.0Ø	.50	50 #	150 #	50M§Δ			PL	TO66	
42	SDT5952	167m§	16 Ø§	J	2.0	.50	200	8.0		.10uØ	2.0Ø	.50	50 #	150 #	50M§Δ			PL	TO66	
43	SDT5953	167m§	16 Ø§	J	2.0	.50	225	8.0		.10uØ	2.0Ø	.50	50 #	150 #	50M§Δ			PL	TO66	
44	2N4075	171m	30 Ø	§J	3.0	2.0	100	5.0	80	100u#	2.0Ø	1.0	30	90			300nØ		MT43	A
45	2N4076	171m	30 Ø	§J	3.0	2.0	100	5.0	80	100u#	2.0Ø	1.0	50	150			300nØ		MT43	A
46	2N5590	171m	30 Ø	§S	2.0		36	4.0	18	1.0mØ	5.0Ø	250m	5.0		200M§Δ				MT72h	R
47	2N5637	171m	30 Ø	§S	3.0		60	4.0	35	1.0mØ	5.0Ø	500m	5.0		400M§Δ				MT72h	R
48	2N5642	171m	30 Ø	§S	3.0		65	4.0	35	1.0mØ	5.0Ø	200m	5.0		250M§Δ				MT72h	R
49	2N5646	171m	30 Ø	§S	2.0		36	4.0	18	1.0mØ	5.0Ø	1.0	15		400M§Δ				MT72h	R
50	3TE604	171m	30 Ø	§J	2.5			4.0	96	1.0m	5.0Ø	500m	10	100	400M§Δ	666m		PE	MT62a	FØ
51	2N2892†	172m	30 Ø	§J	5.0	2.0	100	5.0	80	100n#	2.0Ø	1.0	30	90 #	30M§Δ		300nØØ		TO59	AØ
52	2N2893†	172m	30 Ø	§J	5.0	2.0	100	5.0	80	100n#	2.0Ø	1.0	50	150 #	30M§Δ		300nØØ		TO59	AØ
53	2N4306†	172m	4.0	§C	5.0	2.5	120	6.0	80	10u#	2.0Ø	1.0	50	150 #		200m	90n		MT65	
54	2N4308†	172m	4.0	§C	5.0	2.5	100	6.0	60	10u#	2.0Ø	1.0	50	150 #			90n		MT65	
55	2N4310†	172m	4.0	§C	5.0	2.5	120	6.0	80	10u#	2.0Ø	1.0	40	120 #			90n		MT65	
56	2N4312†	172m	4.0	§C	5.0	2.5	100	6.0	60	10u#	2.0Ø	1.0	40	120 #		330m	90n		MT65	
57#	XB408	175m	30 Ø	§J	5.0 †	1.5	65 †	4.0	40	20m#†	5.0Ø	250m	10	150 #				PE	TO60	
58	2N4070†	185m§	65 Ø	§J	10	5.0	120	8.0	100	10u	5.0Ø	5.0	40	120	20M§Δ	150m	500nØ		TO3	AØ
59	2N4071†	185m§	65 Ø	§J	10	5.0	200	8.0	150	10u	5.0Ø	5.0	40	120	20M§Δ	150m	500nØ		TO3	CØ
60	2N3583	200m	35 Ø	§J	1.0	1.0	250	6.0	175	10mØ	10Ø	500m	40	200	10M§Δ	5.0		D	TO66	CØ
61	2N3584†	200m	35 Ø	§J	2.0	1.0	330	6.0	250	1.0m#	2.0Ø	1.0	8.0	140	10M§Δ	750m	3.0u		TO66	CØ
62	JAN2N3584†	200m	2.5	§J	2.0	1.0	375	6.0	250	3.0m#	10Ø	1.0	25	100 #	15M§Δ		3.0uØØ		TO66	C
63	2N3585†	200m	35 Ø	§J	2.0	1.0	440	6.0	300	1.0m#	2.0Ø	1.0	8.0	140	10M§Δ	750m	3.0u		TO66	CØ
64	JAN2N3585†	200m	2.5	§J	2.0	1.0	500	6.0	300	3.0m#	10Ø	1.0	25	100 #	15M§Δ		3.0uØØ		TO66	C
65	2N3621	200m	30 Ø	§J	5.0	1.0	75	4.0	40	25uØ	5.0Ø	1.0	40 #		200M§Δ				TO61	A
66	2N3622	200m	30 Ø	§J	5.0	1.0	75	4.0	40	25uØ	5.0Ø	1.0	40 #		200M§Δ				TO61	AØ
67	2N3625	200m	30 Ø	§J	5.0	1.0	75	4.0	40	1.0uØ	5.0Ø	1.0	40 #		200M§Δ				TO61	A
68	2N3626	200m	30 Ø	§J	5.0	1.0	75	4.0	40	1.0uØ	5.0Ø	1.0	40 #		200M§Δ				TO61	AØ
69	2N3629	200m	30 Ø	§J	5.0	1.0	100	4.0	50	1.0uØ	5.0Ø	1.0	40 #		200M§Δ				TO61	A
70	2N3630	200m	30 Ø	§J	5.0	1.0	100	4.0	50	1.0uØ	5.0Ø	1.0	40 #		200M§Δ				TO61	AØ
71	2N3878	200m	35 Ø	§J	4.0	4.0	120	7.0	50	25m#	5.0Ø	500m	50	200	40M§Δ	500m			TO66	CØ
72	2N3879†	200m	35 Ø	§J	7.0	5.0	120	7.0	75	25m#	2.0Ø	4.0	12	100	40M§Δ	300m	400n		TO66	CØ
73	2N3919†	200m§	15 Ø	§J	10	2.0	120	6.0	60	5.0m#	2.0Ø	2.0	40	120 #	80M§Δ				TO3	CØ
74	2N3920†	200m§	15 Ø	§J	10	2.0	120	6.0	60	5.0m#	2.0Ø	2.0	100	300 #	80M§Δ				TO3	CØ
75	2N4231	200m	35 Ø	§J	3.0	1.0	40	5.0	40	50u	2.0Ø	1.5	25	100 #	4.0M§Δ				TO66	AØ
76	2N4232	200m	35 Ø	§J	3.0	1.0	60	5.0	60	50u	2.0Ø	1.5	25	100 #	4.0M§Δ				TO66	AØ
77	2N4233	200m	35 Ø	§J	3.0	1.0	80	5.0	80	50u	2.0Ø	1.5	25	100 #	4.0M§Δ				TO66	AØ
78	2N4240†	200m	35 Ø	§J	2.0	1.0	440 †	6.0†	300	2.0m#	2.0Ø	750m	6.0	240	15M§Δ	1.3	500n		TO66	CØ
79	2N4428	200m	3.5 Ø	§J	430m	150m	55	3.5	35	1.0m#♦	5.0Ø	50m	20	200	700M§Δ				TO39	A
80	2N4998	200m#	30 Ø	§J	2.0	1.0	100	6.0	80	1.0m#	5.0Ø	1.0	30	90 #	50M§Δ				TO59	A
81	2N5000	200m#	30 Ø	§J	2.0	1.0	100	6.0	80	1.0m#	5.0Ø	1.0	70	200 #	60M§Δ				TO59	A
82	2N5016	200m#	30 Ø	§S	4.5	1.5	65	4.0	30		4.0Ø	500m	10	200	500M§Δ				TO60	GØ
83	2N5083†	200m	35 Ø	§J	10	2.0	120	6.0	60	1.0m§	2.0Ø	2.0	40	120 #	50M§Δ		300nØ		TO59	C
84	2N5084†	200m	35 Ø	§J	10	2.0	120	6.0	60	1.0m§	2.0Ø	2.0	100	300 #	80M§Δ		300nØ		TO59	C
85	2N5085†	200m	35 Ø	§J	10	2.0	150	6.0	80	1.0m§	2.0Ø	2.0	40	120 #	50M§Δ		300nØ		TO59	C
86	2N5202†	200m	35 Ø	§J	4.0	2.0	100	6.0	75 §	10m#	1.2Ø	4.0	10	100	60M§Δ	300m	400n		TO66	CØ
87	2N5326†	200m§	20 Ø	§J	5.0	1.0	100	6.0	80		1.0Ø	1.0	50	150 #	80M§Δ		150nØ		TO59	A
88▼	2N5660†	200m	10	§C	3.0	200m	250	6.0	200	200n	5.0	1.0	15		20M	400m	150nØ	PL	TO66	
89▼	2N5661†	200m	10	§C	3.0	200m	400	6.0	300	200n	5.0	1.0	15		20M	400m	150nØ	PL	TO66	
90▼	2N5700	200m	35 Ø	§S	3.0		40 †	4.0†	18	2.0mΔ	10Ø	50m	15						TO129	R
91▼	2N5701	200m	35 Ø	§S	3.0		40 †	4.0†	18	2.5mΔ	10Ø	50m	15						TO129	R
92#	2SC679	200m	30 ΔØ	§J	2.0	1.0	300	6.0	300 Ø		10Ø	100m	35	200	230k				MD10f	AØ
93#	2SC690	200m	35 Ø	§J	3.0		60	4.0	40	1.0mØ	10Ø	100m	5.0		200M§			PE	MT59b	GE
94#	2SC825	200m	30 Ø	§J	2.0		300	6.0	300	20uØ	10Ø	500m	20	250	15M§			D	TO66	
95#	2SD129	200m	25	§J	3.0		90	10	80	1.0mØ	5.0Ø	1.0	30	200 *				D	TO66	AØ
96#	2SD130	200m	25 Ø	§J	3.0	3.0 Ø	60	10	50	1.0mØ	5.0Ø	500m	30	200 *	1.0M§	500m		D	TO66	CØ
97#	2SD158	200m	30 Ø	§J	1.0		200	3.0	200	20uØ	10Ø	500m	20	250 *	15M§	6.0		D	TO66	AØ
98#	2SD159	200m	30 Ø	§J	1.0		300	3.0	300	20uØ	10Ø	500m	20	250 *	15M§	6.0		D	TO66	AØ
99#	2SD226	200m	25 Ø	§J	2.0	1.0 #	40	10	40	30uØ	3.0Ø	1.0	20	90 Ø	25k	700m		D	TO66	CØ
100#	2SD226A	200m	25 Ø	§J	2.0	1.0 #	60	10	60	30uØ	3.0Ø	1.0	20	90 Ø	25k	700m		D	TO66	CØ
101#	2SD226B	200m	25 Ø	§J	2.0	1.0 #	80	10	80	30uØ	3.0Ø	1.0	20	90 Ø	25k	700m		D	TO66	CØ
102▼#	2SD234O	200m	1.5	§J	3.0	3.0 Ø	60	10	50	200uØ	5.0Ø	500m	70	140	1.0M§	400m		D	X75	D
103▼#	2SD234R	200m	1.5	§J	3.0	3.0 Ø	60	10	50	200uØ	5.0Ø	500m	40	80	1.0M§	400m		D	X75	D
104▼#	2SD234Y	200m	1.5	§J	3.0	3.0 Ø	60	10	50	200uØ	5.0Ø	500m	120	240	1.0M§	400m		D	X75	D
105▼#	2SD235O	200m	1.5	§J	3.0	3.0 Ø	40	10	35	200uØ	5.0Ø	500m	70	140	1.0M§	1.0		D	X75	D
106▼#	2SD235R	200m	1.5	§J	3.0	3.0 Ø	40	10	35	200uØ	5.0Ø	500m	40	80	1.0M§	1.0		D	X75	D
107▼#	2SD235Y	200m	1.5	§J	3.0	3.0 Ø	40	10	35	200uØ	5.0Ø	500m	120	240	1.0M§	1.0		D	X75	D
108	1714-0402	200m	35 Ø	§J	10 #	2.0	40	7.0	40 Ø	2.5m#	2.0Ø	2.0	20 #		40M§Δ		300nØØ	EMΔ	TO66	
109	1714-0405	200m	35 Ø	§J	10 #	2.0	40	7.0	40 Ø	2.5m#	2.0Ø	5.0	20 #		40M§Δ		400nØØ	EMΔ	TO66	
110	1714-0602	200m	35 Ø	§J	10 #	2.0	60	7.0	60 Ø	2.5m#	2.0Ø	2.0	20 #		40M§Δ		300nØØ	EMΔ	TO66	

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M A X	T E M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O D E
1	1714-0605	200m	35 Ø		§J	10 #	2.0	60	7.0	60 ☑	2.5m#	2.0Ø	5.0	20 #		40M§△		400nØ☑	EM△	TO66		
2	1714-0802	200m	35 Ø		§J	10 #	2.0	80	7.0	80 ☑	2.5m#	2.0Ø	2.0	20 #		40M§△		300nØ☑	EM△	TO66		
3	1714-0805	200m	35 Ø		§J	10 #	2.0	80	7.0	80 ☑	2.5m#	2.0Ø	5.0	20 #		40M§△		400nØ☑	EM△	TO66		
4	1714-1002	200m	35 Ø		§J	10 #	2.0	100	7.0	100 ☑	2.5m#	2.0Ø	2.0	20 #		40M§△		300nØ☑	EM△	TO66		
5	1714-1005	200m	35 Ø		§J	10 #	2.0	100	7.0	100 ☑	2.5m#	2.0Ø	5.0	20 #		40M§△		400nØ☑	EM△	TO66		
6	1714-1202	200m	35 Ø		§J	10 #	2.0	120	7.0	120 ☑	2.5m#	2.0Ø	2.0	20 #		40M§△		300nØ☑	EM△	TO66		
7	1714-1205	200m	35 Ø		§J	10 #	2.0	120	7.0	120 ☑	2.5m#	2.0Ø	5.0	20 #		40M§△		400nØ☑	EM△	TO66		
8	1714-1402	200m	35 Ø		§J	10 #	2.0	140	7.0	140 ☑	2.5m#	2.0Ø	2.0	20 #		40M§△		300nØ☑	EM△	TO66		
9	1714-1405	200m	35 Ø		§J	10 #	2.0	140	7.0	140 ☑	2.5m#	2.0Ø	5.0	20 #		40M§△		400nØ☑	EM△	TO66		
10	1714-1602	200m	35 Ø		§J	10 #	2.0	160	7.0	160 ☑	2.5m#	2.0Ø	2.0	20 #		40M§△		300nØ☑	EM△	TO66		
11	1714-1605	200m	35 Ø		§J	10 #	2.0	160	7.0	160 ☑	2.5m#	2.0Ø	5.0	20 #		40M§△		400nØ☑	EM△	TO66		
12	1714-1802	200m	35 Ø		§J	10 #	2.0	180	7.0	180 ☑	2.5m#	2.0Ø	2.0	20 #		40M§△		300nØ☑	EM△	TO66		
13	40313	200m	35 Ø		§J	2.0	1.0		2.5	300		10Ø	100m	40	250				D	TO66		CØ
14	40318	200m	35 Ø		§J	2.0	1.0		2.5	300		10Ø	20m	40					D	TO66		CØ
15	40322	200m	35 Ø		§J	2.0	1.0			300 §		10Ø	20	40					D	TO66		CØ
16	40328	200m	35 Ø		§J	2.0	1.0		6.0		5.0mΔ	10Ø	1.0	20					D	TO66		CØ
17	40364	200m	35 Ø		§J	7.0	5.0		4.0	60 §	500u	5.0Ø	500m	35	175	15M§			DE	TO66		CØ
18♦	A702	200m	8.0 Ø		†J	250m		400	5.0	400 §	3.0m	20Ø	200m	20		12M§			PE	TO3		CØ
19	B3585	200m	35 Ø§		§C	5.0		60	8.0	40	1.0uØ		1.0	20	60	30M§	500m		PE	TO61		Ø
20	B3586	200m	30 Ø§		§C	5.0		80	8.0	60	1.0uØ		1.0	20	60	30M§	500m		PE	TO61		Ø
21	B3587	200m	30 Ø§		§C	5.0		100	8.0	80	1.0mØ		1.0 Ø	20	60	30M§	500m		PE	TO61		Ø
22	B3588	200m	30 Ø§		§C	5.0		60	8.0	40	1.0mØ		1.0 Ø	40	120	30M§	500m		PE	TO61		Ø
23	B3589	200m	30 Ø§		§C	5.0		80	8.0	60	1.0mØ		1.0 Ø	40	120	30M§	500m		PE	TO61		Ø
24	B3590	200m	30 Ø§		§C	5.0		100	8.0	80	1.0mØ		1.0 Ø	40	120	30M§	500m		PE	TO61		Ø
25	B3591	200m	30 Ø§		§C	5.0		60	8.0	40	1.0mØ		1.0 Ø	100		30M§	500m		PE	TO61		Ø
26	B3592	200m	30 Ø§		§C	5.0		80	8.0	60	1.0mØ		1.0 Ø	100		30M§	500m		PE	TO61		Ø
27	B3593	200m	30 Ø§		§C	5.0		100	8.0	80	1.0mØ		1.0 Ø	100		30M§	500m		PE	TO61		Ø
28	B3618	200m	40 Ø§		§C	10		60	5.0	40	1.0uØ		5.0 Ø	20	60	15M§△	100m		PE	TO61		Ø
29	B3619	200m	40 Ø§		§C	10		80	5.0	60	1.0uØ		5.0 Ø	20	60	15M§△	100m		PE	TO61		Ø
30	B3620	200m	40 Ø§		§C	10		100	5.0	80	1.0uØ		5.0 Ø	20	60	15M§△	100m		PE	TO61		Ø
31	B3621	200m	40 Ø§		§C	10		60	5.0	40	1.0uØ		5.0 Ø	40	120	15M§△	100m		PE	TO61		Ø
32	B3622	200m	40 Ø§		§C	10		80	5.0	60	1.0uØ		5.0 Ø	40	120	15M§△	100m		PE	TO61		Ø
33	B3623	200m	40 Ø§		§C	10		100	5.0	80	1.0uØ		5.0 Ø	40	120	15M§△	100m		PE	TO61		Ø
34	B3624	200m	40 Ø§		§C	10		60	5.0	40	1.0uØ		5.0 Ø	100		15M§△	100m		PE	TO61		Ø
35	B3625	200m	40 Ø§		§C	10		80	5.0	60	1.0uØ		5.0 Ø	100		15M§△	100m		PE	TO61		Ø
36	B3626	200m	40 Ø§		§C	10		100	5.0	80	1.0uØ		5.0 Ø	100		15M§△	100m		PE	TO61		Ø
37#	BD111	200m§	15 Ø		§J	10 #	2.0	60	5.0	60	10uØ	2.0Ø	2.0	40 #	90 Ø	100M§			DPE	TO3		
38#	BD113	200m§	15 Ø		§J	10	2.0	60	5.0	60	10uØ	2.0Ø	2.0	40 #	90 Ø	100M§			DPE	TO3		
39▼	BD144	200m	8.0 ♦		†J	250m	250mØ	400	5.0	400 §	3.0m†	20Ø	200m	20 †		12M§				TO3		CØ
40#	BLY12	200m	3.0		§J	1.5		60	4.0	30	100uØ	2.0Ø	2.0	30	100 #	60M§△	500m		PE	TO3		
41#	BU100	200m§	15 Ø		§J	10	2.0	150	5.0	60	10uØ	2.0Ø	2.0	40 #	90 Ø	100M§			DPE	TO3		
42#	BUY10†	200m	2.5		§J	800m	150m	40	6.0	20	1.0m	2.0Ø	100m	15	60	90M§	4.0	10n	PEØ	TO3		Ø
43#	BUY11†	200m	2.5		§J	900m	150m	40	6.0	20	1.0m	2.0Ø	100m	40	100	140M§	4.0	9.0m	PEØ	TO3		Ø
44#	BUY24†	200m§	10 Ø		§J	5.0		120	6.0	60	10u§	2.0Ø	2.0	40 #	85 Ø	100M§		150nØ	DPE	TO3		CØ
45#	CP701	200m	15 §		§J	5.0		60	5.0	40	10u§♦	2.0Ø	2.0	30 #	70 Ø	40M§△		1.0u†	DPE	TO3		Ø
46	MHT6901	200m	20			5.0	.50	145	8.0	125	1.0u	2.0	1.0	20	60	50M				TO66		
47	MHT6902	200m	20			5.0	.50	170	8.0	150	1.0u	2.0	1.0	20	60	50M				TO66		
48	MHT6903	200m	20			5.0	.50	195	8.0	175	1.0u	2.0	1.0	20	60	50M				TO66		
49	MHT6904	200m	20			5.0	.50	220	8.0	200	1.0u	2.0	1.0	20	60	50M				TO66		
50	MHT6905	200m	20			5.0	.50	145	8.0	125	1.0u	2.0	1.0	40	120	50M				TO66		
51	MHT6906	200m	20			5.0	.50	170	8.0	150	1.0u	2.0	1.0	40	120	50M				TO66		
52	MHT6907	200m	20			5.0	.50	195	8.0	175	1.0u	2.0	1.0	40	120	50M				TO66		
53	MHT6908	200m	20			5.0	.50	220	8.0	200	1.0u	2.0	1.0	40	120	50M				TO66		
54	MHT7511	200m§	20 Ø		§J			60	5.0	40	1.0u		5.0	20	60	40M§				TO8		
55	MHT7512	200m§	20 Ø		§J			80	5.0	60	1.0uØ		5.0	20	60	40M§				TO8		
56	MHT7513	200m§	20 Ø		§J			100	5.0	80	1.0uØ		5.0	20	60	40M§				TO8		
57	MHT7514	200m§	20 Ø		§J			60	5.0	40	1.0u		5.0	40	120	50M§				TO8		
58	MHT7515	200m§	20 Ø		§J			80	5.0	60	1.0uØ		5.0	40	120	50M§				TO8		
59	MHT7516	200m§	20 Ø		§J			100	5.0	80	1.0uØ		5.0	40	120	50M§				TO8		
60	MHT7517	200m§	20 Ø		§J			60	5.0	40	1.0u		5.0	100		60M§				TO8		
61	MHT7518	200m§	20 Ø		§J			80	5.0	60	1.0uØ		5.0	100		60M§				TO8		
62	MHT7519	200m§	20 Ø		§J			100	5.0	80	1.0uØ		5.0	100		60M§				TO8		
63♦	MJE520	200m	25 Ø		§J	3.0	2.0	30	4.0	30	100u	1.0Ø	1.0	25 #						X58		B
64	SDT6901	200m§	20 Ø		§J	5.0	500m	145	8.0		1.0uØ	2.0Ø	1.0	20	60 #	20M§△			PL	TO66		
65	SDT6902	200m§	20 Ø		§J	5.0	500m	170	8.0		1.0uØ	2.0Ø	1.0	20	60 #	20M§△			PL	TO66		
66	SDT6903	200m§	20 Ø		§J	5.0	500m	195	8.0		1.0uØ	2.0Ø	1.0	20	60 #	20M§△			PL	TO66		
67	SDT6904	200m§	20 Ø		§J	5.0	500m	220	8.0		1.0uØ	2.0Ø	1.0	20	60 #	20M§△			PL	TO66		
68	SDT6905	200m§	20 Ø		§J	5.0	500m	145	8.0		1.0uØ	2.0Ø	1.0	40	120 #	20M§△			PL	TO66		
69	SDT6906	200m§	20 Ø		§J	5.0	500m	170	8.0		1.0uØ	2.0Ø	1.0	40	120 #	20M§△			PL	TO66		
70	SDT6907	200m§	20 Ø		§J	5.0	500m	195	8.0		1.0uØ	2.0Ø	1.0	40	120 #	20M§△			PL	TO66		
71	SDT6908	200m§	20 Ø		§J	5.0	500m	220	8.0		1.0uØ	2.0Ø	1.0	40	120 #	20M§△			PL	TO66		
72	SE3030	200m§	15 Ø		§J	10	2.0	150	5.0	60	10uØ	10Ø	500m	150 Ø	#	100M§		1.0u#☑	DPE	TO3		CØ
73	SE3031	200m§	15 Ø		§J	10	2.0	150	5.0	60	10uØ	10Ø	500m	125 Ø	#	100M§		1.0u#☑	DPE	TO3		CØ
74	SE3032	200m§	15 Ø		§J	10	2.0	60	5.0	60	10uØ	10Ø	500m	150 Ø	#	100M§		1.0u#☑	DPE	TO3		CØ
75	SE3035	200m#	20 Ø		§J			40	5.0	40	10uØ	5.0Ø	500m	30	260 #				DPL	TO3		CØ
76	SE3036	200m§	15 Ø		§J			40	5.0	40	10uØ	5.0Ø	500m	30	260 #				DPE	TO3		CØ
77	2N1768	220m	40 Ø		§A	3.0	1.5	60	12	40 ☑	15uØ	4.0Ø	750m	35	100	600k†	1.0		Δ	MT5		AØ
78	2N1769	220m	40 Ø		§A	3.0	1.5	100	12	55 ☑	15uØ	4.0Ø	750m	35	100	600k†	1.0		Δ	MT5		AØ
79	2N2036	222mØ	17 Ø		§S	5.0		80	10	60	10m	4.0Ø	2.0	15	45	2.0M†	500m		DΔ	TO37		AØ
80▼#	MP8111	222m	3.0		§J	1.2		60	7.0	60	5.0u§	5.0Ø	200m	30	60	100M§△	600m		PE△	X95		
81▼#	MP8112	222m	3.0		§J	1.2		60	7.0	60	5.0u§	5.0Ø	200m	50	120	100M§△	600m		PE△	X95		
82▼#	MP8113	222m	3.0		§J	1.2		60	7.0	60	5.0u§	5.0Ø	200m	100	240	100M§△	600m		PE△	X95		
83▼#	MP8121	222m	3.0		§J	1.2		35	7.0	35	5.0u§	5.0Ø	200m	20	60	100M§△	600m		PE△	X95		
84▼#	MP8122	222m	3.0		§J	1.2		35	7.0	35	5.0u§	5.0Ø	200m	50	120	100M§△	600m		PE△	X95		
85▼#	MP8123	222m	3.0		§J	1.2		35	7.0	35	5.0u§	5.0Ø	200m	100		100M§△	600m		PE△	X95		
86▼#	MP8211	222m	5.0		§J	400m		60	7.0	60	1.0m	5.0Ø	500m	30	60	100M§			PE	TO66		CØ
87▼#	MP8212	222m	5.0		§J	400m		60	7.0	60	1.0m	5.0Ø	500m	50	120	100M§			PE	TO66		CØ
88▼#	MP8213	222m	5.0		§J	400m		60	7.0	60	1.0m	5.0Ø	500m	100		100M§			PE	TO66		CØ
89▼#	MP8221	222m	5.0		§J	400m		35	7.0	35	1.0m	5.0Ø	500m	20	60	100M§			PE	TO66		CØ
90▼#	MP8222	222m	5.0		§J	1.5		35	7.0	35	1.0m	5.0Ø	500m	50	120	100M§			PE	TO66		CØ
91▼#	MP8223	222m	5.0		§J	1.5		35	7.0	35	1.0m	5.0Ø	500m	100		100M§			PE	TO66		CØ
92	2N5596	225m	40 Ø		§S	2.5	1.0	55	3.5	30	4.0mØ	5.0Ø	50m	20		1.5G§△				MT73a		R
93	JAN2N1047A	227m	1.0		§S	500m			10	80	15uØ	10Ø	50m	12	36 #	2.0M§△	15			TO57		AØ
94	JAN2N1048A	227m	1.0		§S	500m			10	120	15uØ	10Ø	50m	12	36 #	2.0M§△	15			TO57		AØ
95	JAN2N1049A	227m	1.0		§S	500m			10	80	15u	10Ø	50m	30	90 #	2.0M§△	15			TO57		AØ
96	JAN2N1050A	227m	1.0		§S	500m			10	120	15uØ	10Ø	50m	30	90 #	2.0M§△	15			TO57		AØ
97	2N4128	227m	40 Ø		§A	4.0	1.0	60 †	4.0†	40	1.0mØ	5.0Ø	200m	10	80	200M§△	500m			MT59		R
98#	2SC704	227m	40 Ø		§J	4.0		40	4.0	20	2.0mØ	10Ø	100m	5.0		100M§			PE	MT59b		GE
99	PT5693	227m	40 Ø		§J	4.0		40	4.0	20	5.0m	14Ø	100m	15	120		5.0		PL	MT59		
100	2N1047	228m	1.0		§J	500m		80	6.0		15uØ	10Ø	500m	12	36 #					TO57		AØ
101	2N1047A	228m	1.0		§J	500m	500m	80	10	80	350u	10Ø	500m	12	36 #	75kΔ				TO57		AØ
102	2N1047B	228m	1.0		§J	750m	500m	80	10	80	10uØ	10Ø	500m	12	36 #	125kΔ				TO57		AØ
103	2N1048	228m	1.0		§J	500m		120	6.0		15uØ	10Ø	500m	12	36 #					TO57		AØ
104	2N1048A	228m	1.0		§J	500m	500m	120	10	120	350u	10Ø	500m	12	36 #	75kΔ				TO57		AØ
105	2N1048B	228m	1.0		§J	750m	500m	120	10	120	10uØ	10Ø	500m	12	36 #	125kΔ				TO57		AØ
106	2N1049	228m	1.0		§J	500m		80	6.0		15uØ	10Ø	500m	30	90 #					TO57		AØ
107	2N1049A	228m	1.0		§J	500m	500m	80	10	80	350u	10Ø	500m	30	90 #	75kΔ				TO57		AØ
108	2N1049B	228m	1.0		§J	750m	500m	80	10	80	10uØ	10Ø	500m	30	90 #	125kΔ				TO57		AØ
109	2N1050	228m	1.0		§J	500m		120	6.0		15uØ	10Ø	500m	30	90 #					TO57		AØ
110	2N1050A	228m	1.0		§J	500m	500m	120	10	120	350u	10Ø	500m	30	90 #	75kΔ				TO57		AØ

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AE XM P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	LC EO AD DE
1	2N1050B	228m	1.0	§J	750m	500m	120	10	120	10uØ	10Ø	500m	30	90 #	125kΔ				TO57	AØ
2	2N1690	228m	1.0	§J	500m	500m	80	10	80	350u	10Ø	500m	20	60 #	90kΔ				MT5	AØ
3	2N1691	228m	1.0	§J	500m	500m	120	10	120	350u	10Ø	500m	20	60 #	90kΔ				MT5	AØ
4	2N5177	228m	40 Ø	§J	4.0	1.0	55	3.5	35	10m#	5.0Ø	100m	10	150	200M§Δ				MD36	FⓏ
5♦	2N5427†	228m	40 Ø	§J	7.0	1.0	80 †	6.0†	80	10u	2.0Ø	2.0	50	120 #	30M§Δ		100n		TO66	CØ
6♦	2N5428†	228m	40 Ø	§J	7.0	1.0	80 †	6.0†	80	10u	2.0Ø	2.0	60	240 #	30M§Δ		100n		TO66	CØ
7♦	2N5429†	228m	40 Ø	§J	7.0	1.0	100 †	6.0†	100	10u	2.0Ø	2.0	30	120 #	30M§Δ		100n		TO66	CØ
8♦	2N5430†	228m	40 Ø	§J	7.0	1.0	100 †	6.0†	100	10u	2.0Ø	2.0	60	240 #	30M§Δ		100n		TO66	CØ
9▼	MJ3801†	228m	40 Ø	§J	10	500m	80	7.5	80	10u	4.0Ø	6.0	10k	60k	50M§Δ	200m	200nⓏ		L69	
10▼	MJ3802†	228m	40 Ø	§J	10	500m	80	7.5	80	10u	4.0Ø	6.0	1.0k	20k	50M§Δ	200m	200nⓏ		L69	
11	2N2828	229m	40 Ø	§A	3.0	1.0	80	10	60	50mØ	4.0Ø	500m	20	60	1.0M§Δ	800m	1.5u	D	MT25	
12	STC1300	229m	40 Ø	§J	1.5		60	6.0	40		4.0Ø	300m	20	80	2.5M†	5.0	900n	DΔ	MT5	
13	STC1336	229m	40 Ø	§J				6.0	40	15uØ	10Ø	200m	30	90	2.5M†	15	900n	DΔ	MT5	
14	2N4921	238m	30 Ø	§J	1.0	1.0	40	5.0	40	100u	1.0Ø	500m	20	100 #	3.0M§Δ				X58	BØ
15	2N4922	238m	30 Ø	§J	1.0	1.0	60	5.0	60	100u	1.0Ø	500m	20	100 #	3.0M§Δ				X58	BØ
16	2N4923	238m	30 Ø	§J	1.0	1.0	80	5.0	80	100u	1.0Ø	500m	20	100 #	3.0M§Δ				X58	BØ
17	TIP29†	238m	2.0	§J	1.0	400m	40	5.0	40	300uΔ	4.0	200m	40	200 #	3.0k§Δ		350nØ	D	X75b	BØ
18	TIP29A†	238m	2.0	§J	1.0	400m	60	5.0	60	300uΔ	4.0	200m	40	200 #	3.0k§Δ		350nØ	D	X75b	BØ
19#	2SC766	240m	30 Ø	§J	2.0		120	5.0	80	1.0mØ	4.0Ø	1.0	20	180				ME	TO3	CØ
20#	2SC767	240m	30 Ø	§J	2.0		180	5.0	120	1.0mØ	4.0Ø	1.0	20	180				ME	TO3	CØ
21▼	2N5705	250m	44 Ø	§S	4.0		36	3.0	18	2.0mΔ	5.0Ø	100m	15						TO128	R
22	A273	250m	44 Ø	§J	2.0		65	4.0	36	10mΔ	5.0Ø	500m	5.0		500M§	600m		PE	MT72c	R
23	A277	250m	44 Ø	§J	3.5		36	4.0	18	10mΔ	5.0Ø	500m	5.0		700M§	600m		PE	MT72c	
24	B149000	250m	25	§J	10	2.0	50	5.0	40	1.0m§							2.0u	Δ	TO60	A
25	B149001	250m	25	§J	10	2.0	50	5.0	40	1.0m§							2.0u	Δ	TO60	A
26	B149002	250m	25	§J	10	2.0	70	5.0	60	1.0m§							2.0u	Δ	TO60	A
27	B149003	250m	25	§J	10	2.0	70	5.0	60	1.0m§							2.0u	Δ	TO60	A
28	B149004	250m	25	§J	10	2.0	90	5.0	80	1.0m§							2.0u	Δ	TO60	A
29	B149005	250m	25	§J	10	2.0	90	5.0	80	1.0m§							2.0u	Δ	TO60	A
30#	BDY12	250m	15 *	§J	2.0		60	5.0	40	100nØ	2.0Ø	1.0	30	150	30M§Δ			PE	MD17b	
31#	BDY13	250m	15 *	§J	2.0		80	5.0	60	100nØ	2.0Ø	1.0	30	150	30M§Δ			PE	MD17b	
32#	BLY89	250m	44 Ø	§J	3.5		36	4.0	18	10mΔ	5.0Ø	500m	5.0		700M§	600m			MT72	GCØ
33▼	BLY93	250m	24	§J	6.0 #		65	4.0	36	10mΔ	5.0Ø	500m	5.0 †		500M§			PE		
34	BR100D§	250m	35 Ø	§J	10	2.0	60	3.0	40	1.0mØ	5.0Ø	3.0	40	200 #	300M§				TO60	A
35	BR101D§	250m	35 Ø	§J	10	2.0	90	3.0	75	1.0mØ	5.0Ø	3.0	30	150 #	300M§				TO60	A
36	MHT7901	250m§	25 Ø	§J	10		225	8.0	200	1.0uØ	5.0Ø	5.0	20	60 #	50M§Δ			PL	TO66	CØ
37	MHT7902	250m§	25 Ø	§J	10		250	8.0	225	1.0uØ	5.0Ø	5.0	20	60 #	50M§Δ			PL	TO66	CØ
38	MHT7903	250m§	25 Ø	§J	10		275	8.0	250	1.0uØ	5.0Ø	5.0	20	60 #	50M§Δ			PL	TO66	CØ
39	MHT7904	250m§	25 Ø	§J	10		325	8.0	300	1.0uØ	5.0Ø	5.0	20	60 #	50M§Δ			PL	TO66	CØ
40	MHT7905	250m§	25 Ø	§J	10		350	8.0	325	1.0uØ	5.0Ø	5.0	20	60 #	50M§Δ			PL	TO66	CØ
41	2N5025	256m	45 Ø	§J	5.0		75	4.5	75	10u§	2.0Ø	2.0	20 #		150M§Δ				TO60	AⓏ
42	2N5026	256m	45 Ø	§J	5.0		90	4.5	90	10u§	2.0Ø	2.0	20 #		150M§Δ				TO60	AⓏ
43	2N1648	263m	40 Ø	§S	3.0		120	6.0	80	100uØ	10Ø	500m	15	45	2.0M§	3.0	1.0u	Δ	MT11	AØ
44	2N1650	263m	40 Ø	§S	3.0		120	6.0	80	100uØ	10Ø	500m	30	90	2.0M§	3.0	500n	Δ	MT11	AØ
45	2N2018	263m§	20 Ø	§S	2.0	500m	150	6.0	125	100uØ	10Ø	500m	20	60 #	10M§	6.0	1.0u		MT11	
46	2N2019	263m§	20 Ø	§S	2.0	500m	200	6.0	140	100uØ	10Ø	500m	20	60 #	10M§	6.0	1.0u		MT11	
47	2N1647	266m	40 Ø	§S	3.0		80	6.0	80 #	100uØ	10Ø	500m	15	45	3.0M§Δ	3.0		Δ	MT11	AØ
48	2N1649	266m	40 Ø	§S	3.0		80	6.0	80 #	100uØ	10Ø	500m	30	90	3.0M§Δ	3.0		Δ	MT11	AØ
49	2N1886	266m	40 Ø	§S	3.0		60	6.0	60	350u	10Ø	500m	20		2.0M§Δ	5.0		Δ	MT11	CØ
50	2N2632	266m	40 Ø	ØJ	5.0	500m	90	8.0	60	100nØ	2.0Ø	1.0	40	120	30M	250m	80n	PLΔ	MT24	
51	2N2633	266m	40 Ø	ØJ	5.0	500m	120	8.0	80	100nØ	2.0Ø	1.0	40	120	30M	250m	80n	PLΔ	MT24	
52	2N2634	266m	40 Ø	ØJ	5.0	500m	150	8.0	100	100nØ	2.0Ø	1.0	40	120	30M	250m	80n	PLΔ	MT24	
53	2N2866	266m	40 Ø	§C	2.0	150m	120	10	80		5.0	500m	20	60	20M†	750m		PL	MT21	
54	2N2867	266m	40 Ø	§C	2.0	150m	120	10	80		5.0	500m	40	120	20M†	750m		PL	MT21	
55	2N5050†	266m	40 Ø	§J	2.0	1.0	125	6.0	125	500u#	5.0Ø	750m	25	100 #	10M§Δ		300n		TO66	CØ
56	2N5051†	266m	40 Ø	§J	2.0	1.0	150	6.0	150	500u#	5.0Ø	750m	25	100 #	10M§Δ		300n		TO66	CØ
57	2N5052†	266m	40 Ø	§J	2.0	1.0	200	6.0	200	500u#	5.0Ø	750m	25	100 #	10M§Δ		300n		TO66	CØ
58#	2S033†	266m	4.0	§J	3.0	2.0	100	8.0	75	2.0mØ	10Ø	1.0	30	100 #	15M§Δ		450nØ	DM	TO3	
59#	2S034†	266m	4.0	§J	3.0	2.0	100	8.0	75	2.0mØ	10Ø	1.0	60	200 #	15M§Δ		450nØ	DM	TO3	
60#	2S035†	266m	4.0	§J	3.0	2.0	150	8.0	100	2.0mØ	10Ø	1.0	30	100 #	15M§Δ		450nØ	DM	TO3	
61#	2S036†	266m	4.0	§J	3.0	2.0	150	8.0	100	2.0mØ	10Ø	1.0	60	200 #	15M§Δ		450nØ	DM	TO3	
62	MHT6001	266m	40 Ø	§J	5.0		100	5.0	50	1.0uØ	5.0Ø	1.0	10	120 #	30M	1.0		PL	MT24	
63	MHT6011	266m	40 Ø	§J	5.0		80	8.0	40	1.0uØ	5.0Ø	1.0	20	60 #	30M	500m		PL	MT24	
64	MHT6012	266m	40 Ø	§J	5.0		100	8.0	80	1.0uØ	5.0Ø	1.0	20	60 #	30M§	500m		DPL	MT24	
65	MHT6013	266m	40 Ø	§J	5.0		80	8.0	40	1.0uØ	5.0Ø	1.0	40	120 #	30M	500m		PL	MT24	
66	MHT6014	266m	40 Ø	§J	5.0		100	8.0	80	1.0uØ	5.0Ø	1.0	40	120 #	30M	500m		PL	MT24	
67	MHT6015	266m	40 Ø	§J	5.0		80	8.0	40	1.0uØ	5.0Ø	1.0	100 #		30M	500m		PL	MT24	
68	MHT6016	266m	40 Ø	§J	5.0		100	8.0	80	1.0uØ	5.0Ø	1.0	100 #		30M	500m		PL	MT24	
69	MHT6031	266m	40 Ø	§J	5.0	500m	60	5.0	40	1.0uØ	5.0Ø	1.0	20	60	30M§	500m		PL	MT24	
70	2N2020	267m	40 Ø	§S	2.0		150	6.0	125	100uØ	10Ø	500m	40	90	3.0M§Δ	6.0		Δ	MT11	CØ
71	2N2021	267m	40 Ø	§S	2.0		200	6.0	140	100uØ	10Ø	500m	40	90	3.0M§Δ	6.0		Δ	MT11	CØ
72	40613	277m	1.8	§A	4.0	2.0		5.0	25 Ⓩ	2.0u	4.0Ø	1.0	30	120				H	X75a	T
73	40618	277m	1.8	§A	4.0	2.0		5.0	30 Ⓩ	2.0u	4.0Ø	1.0	30	120				H	X75a	T
74	40621	277m	1.8	§A	4.0	2.0		5.0	32 Ⓩ	500n	4.0Ø	1.5	25	100				H	X75a	T
75	40622	277m	1.8	§A	4.0	2.0		5.0	40 Ⓩ	500u*	4.0Ø	1.5	25	100				H	X75a	T
76	40629	277m	1.8	§A	4.0	2.0		5.0		500u*	4.0Ø	1.0	20	70				H	X75a	T
77	40630	277m	1.8	§A	4.0	2.0		5.0		500u*	4.0Ø	1.5	20	70				H	X75a	T
78	40631	277m	1.8	§A	4.0	2.0		5.0		500u*	4.0Ø	2.0	20	70				H	X75a	T
79#	2SC101A	280m	35 Ø	§J	5.0		70	5.0	50	1.0mØ	10Ø	500m	30 †		20M§			ME	TO66	
80	B5001	285m	29 Ø	§J	3.0	1.0			35	1.5mØ†	14Ø	500m	30	250		1.2		†	MD35a	B
81	B5002	285m	29 Ø	§J	3.0	1.0			60	1.5mØ†	14Ø	500m	30	250		1.2		†	MD35a	B
82	B5021	285m	29 Ø	§J	3.0	1.0			35	1.5mØ†	14Ø	500m	30	75		1.2		†	MD35a	B
83	B5022	285m	29 Ø	§J	3.0	1.0			60	1.5mØ†	14Ø	500m	30	75		1.2		†	MD35a	B
84	B5031	285m	29 Ø	§J	3.0	1.0			35	1.5mØ†	14Ø	500m	60	120		1.2		†	MD35a	B
85	B5032	285m	29 Ø	§J	3.0	1.0			60	1.5mØ†	14Ø	500m	60	120		1.2		†	MD35a	B
86	B5041	285m	29 Ø	§J	3.0	1.0			35	1.5mØ†	14Ø	500m	100	175		1.2		†	MD35a	B
87	B5042	285m	29 Ø	§J	3.0	1.0			60	1.5mØ†	14Ø	500m	100	175		1.2		†	MD35a	B
88	B5051	285m	29 Ø	§J	3.0	1.0			35	1.5mØ†	14Ø	500m	150	250		1.2		†	MD35a	B
89	B5052	285m	29 Ø	§J	3.0	1.0			60	1.5mØ†	14Ø	500m	150	250		1.2		†	MD35a	B
90	MSA8506	285m	50 Ø	§J	5.0			4.0	18		5.0Ø	2.0	5.0 #		350M§			DPE	MT72e	
91	V409	285m	50 Ø	§J	6.0		65	4.0	40	200nΔ♦					300M§Δ	500m		PE	TO60	
92▼	2N5690	286m	50 Ø	§S	5.0		50 †	4.0†	30	1.0mΔ	10Ø	100m	10						TO128	R
93	2N5293	288m	36 Ø	§J	4.0	2.0	80	7.0	75 §	100mΔ	4.0Ø	500m	30	120	800k§Δ	550m			X75a	TØ
94	2N5294	288m	36 Ø	§J	4.0	2.0	80	7.0	75 §	100mΔ	4.0Ø	500m	30	120	800k§Δ	550m			X75	DØ
95	2N5295	288m	36 Ø	§J	4.0	2.0	60	5.0	50 §	100mΔ	4.0Ø	1.0	30	120	800k§Δ	550m			X75a	TØ
96	2N5296	288m	36 Ø	§J	4.0	2.0	60	5.0	50 §	100mΔ	4.0Ø	1.0	30	120	800k§Δ	550m			X75	DØ
97	2N5297	288m	36 Ø	§J	4.0	2.0	80	5.0	70 §	100mΔ	4.0Ø	1.5	20	80	800k§Δ	550m			X75a	TØ
98	2N5298	288m	36 Ø	§J	4.0	2.0	80	5.0	70 §	100mΔ	4.0Ø	1.5	20	80	800k§Δ	550m			X75	DØ
99	2N2829	300m§	40 Ø	§J	3.0		80	10	60		4.0Ø	1.0	20	60	1.0M§Δ	300m	1.0uØ	D	MT25	
100	2N2877†	300m§	30 Ø	§J	5.0	500m	80	8.0	60	100nØ	2.0Ø	10	15		30M§Δ	250m	120nⓏ		MT42	AØ
101	2N2878†	300m§	30 Ø	§J	5.0	500m	80	8.0	60	100nØ	2.0Ø	10	30		50M§Δ	250m	80nⓏ		MT42	AØ
102	2N2879†	300m§	30 Ø	§J	5.0	500m	100	8.0	80	100nØ	2.0Ø	10	15		30M§Δ	250m	120nⓏ		MT42	AØ
103	2N2880†	300m§	30 Ø	§J	5.0	500m	100	8.0	80	100nØ	2.0Ø	10	30		50M§Δ	250m	80nⓏ		MT42	AØ
104	JAN2N2880†	300m	2.0	§A	5.0		110	8.0	80	400nØ	5.0Ø	1.0	40	120 #	120M§Ⓩ		300nⓏ		ZA30	AØ
105	JAN2N3749†	300m	2.0	§A	5.0		110	8.0	80	400nØ	5.0Ø	1.0	40	120 #	120M§Ⓩ		300nⓏ		MT53	GN
106	2N3996†	300m§	2.0	§J	5.0	1.0	100	8.0	80	5.0u§	2.0Ø	50m	30		40M§Δ		300nØ		MT53	M
107	2N3997†	300m§	2.0	§J	5.0	1.0	100	8.0	80	5.0u§	2.0Ø	50m	60		40M§Δ		300nØ		MT53	M
108	2N3998†	300m§	2.0	§J	5.0	1.0	100	8.0	80	5.0u§	2.0Ø	50m	30		40M§Δ		300nØ		MT42	AØ
109	2N3999†	300m§	2.0	§J	5.0	1.0	100	8.0	80	5.0u§	2.0Ø	50m	60		40M§Δ		300nØ		MT42	AØ
110	2N5658†	300m	30	§J	10	2.0	120	7.0	80	200n§	5.0Ø	5.0	50	150 #	30M§Δ		150nØ		TO59	AØ

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AEXMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LCEOADDE
1	2N5659†	300m	30	§J	10	2.0	120	7.0	80	200n§	5.0Ø	5.0	50	150 #	30M§Δ		150nØ		TO111	G
2▼	2N5664†	300m	10	§C	10	600m	250	6.0	200	200n	5.0	3.0	15		20M	130m	200nØ	PL	TO66	
3▼	2N5665†	300m	10	§C	10	600m	400	6.0	300	200n	5.0	3.0	15		20M	130m	200nØ	PL	TO66	
4▼	2N5730†	300m	45 Ø#	§J	10	2.0	100	5.0	80	1.0m§	2.0Ø	2.0	30	300 #	30M§		200n	PE	TO59	A
5#	BD121†	303m	45	§J	5.0	1 #	60	6.0	35	.05mØ	4.0Ø	4.0	15	25 Ø	95M§	.65	.08u	PE	TO3	CØ
6#	BD123†	303m	45	§J	5.0	1 #	90	6.0	60	.05mØ	4.0Ø	4.0	15	25 Ø	85M§	.65	.09u	PE	TO3	CØ
7	2N5190	320m	40 Ø	§J	4.0	1.0	40	5.0	40	100u	2.0Ø	1.5	25	100	2.0M§Δ	350m			X58	BØ
8	2N5191	320m	40 Ø	§J	4.0	1.0	60	5.0	60	100u	2.0Ø	1.5	25	100	2.0M§Δ	350m			X58	BØ
9	2N5192	320m	40 Ø	§J	4.0	1.0	80	5.0	80	100u	2.0Ø	1.5	20	80	2.0M§Δ	350m			X58	BØ
10♦	MJE521	320m	40 Ø	§J	3.0	2.0	40	4.0	40	100u	1.0Ø	1.0	40 #						X58	B
11	TIP31†	322m	2.0	§J	3.0	1.0	40	5.0	40	500uΔ	4.0	1.0	20	100 #	3.0k§Δ		450nØ	D	X75b	BØ
12	TIP31A†	322m	2.0	§J	3.0	1.0	60	5.0	60	500uΔ	4.0	1.0	20	100 #	3.0k§Δ		450nØ	D	X75b	BØ
13▼	2N5614	330m#	50 Ø	§J	5.0	2.0	80 †	6.0†	60	1.0m#♦	5.0Ø	2.5	70	200 #	70M§Δ				TO3	CØ
14▼	2N5616	330m#	50 Ø	§J	5.0	2.0	100 †	6.0†	80	1.0m#♦	5.0Ø	2.5	30	90 #	60M§Δ				TO3	CØ
15▼	2N5618	330m#	50 Ø	§J	5.0	2.0	100 †	6.0†	80	1.0m#♦	5.0Ø	2.5	70	200 #	70M§Δ				TO3	CØ
16▼	2N5620	330m#	50 Ø	§J	5.0	2.0	120 †	6.0†	100	1.0m#♦	5.0Ø	2.5	30	90 #	60M§Δ				TO3	CØ
17	2N1069†	333m	50 Ø	§A	4.0	1.3	60	9.0	45	1.0n	4.0Ø	1.5	10	50	1.2M†	2.0	1.8u	D	TO3	CØ
18	2N1070†	333m	50 Ø	§A	4.0	1.3	60	9.0	45	1.0n	4.0Ø	1.5	10	50	1.2M†	670m	1.8u	D	TO3	CØ
19	2N2102	333m	1.0	§J	1.0		120	7.0	65	2.0nØ	10Ø	10mØ	35		60M§Δ	3.3		Ø	TO5	AØ
20	2N3397†	333m	2.0	§J	5.0	1.0	100	8.0	80	5.0u§Ø	2.0Ø	1.0	80	240 #	40M§Δ	400m	300nØ		MT53	G
21	2N3398†	333m	2.0	§J	5.0	1.0	100	8.0	80	5.0u§Ø	2.0Ø	1.0	40	120 #	40M§Δ	400m	300nØ		MT42	Ø
22	2N3744†	333m§	30 Ø	§J	5.0	500m	60	7.0	40	100nØ	5.0Ø	1.0	20	60 #	30M§Δ		120n		MT53	G
23	2N3745†	333m§	30 Ø	§J	5.0	500m	80	8.0	60	100nØ	5.0Ø	1.0	20	60 #	30M§Δ		120n		MT53	G
24	2N3746†	333m§	30 Ø	§J	5.0	500m	100	8.0	80	100nØ	5.0Ø	1.0	20	60 #	30M§Δ		120n		MT53	G
25	2N3747†	333m§	30 Ø	§J	5.0	500m	60	7.0	40	100nØ	5.0Ø	1.0	40	120 #	40M§Δ		80n		MT53	G
26	2N3748†	333m§	30 Ø	§J	5.0	500m	80	8.0	60	100nØ	5.0Ø	1.0	40	120 #	40M§Δ		80n		MT53	G
27	2N3749†	333m§	30 Ø	§J	5.0	500m	100	8.0	80	100nØ	5.0Ø	1.0	40	120 #	40M§Δ		80n		MT53	G
28	2N3750†	333m§	30 Ø	§J	5.0	500m	60	7.0	40	100nØ	5.0Ø	1.0	100	300 #	50M§Δ		80n		MT53	G
29	2N3751†	333m§	30 Ø	§J	5.0	500m	80	8.0	60	100nØ	5.0Ø	1.0	100	300 #	50M§Δ		80n		MT53	G
30	2N3752†	333m§	30 Ø	§J	5.0	500m	100	8.0	80	100nØ	5.0Ø	1.0	100	300 #	50M§Δ		80n		MT53	G
31	JAN2N3996†	333m§	2.0	§S	5.0		100	8.0	80	5.0u§	2.0Ø	1.0	40	120 #	40M§Δ		300nØ☑		MT53	M
32	JAN2N3997†	333m§	2.0	§S	5.0		100	8.0	80	5.0u§	2.0Ø	1.0	80	240 #	40M§Δ		300nØ☑		MT53	M
33	JAN2N3998†	333m§	2.0	§S	5.0		100	8.0	80	5.0u§	2.0Ø	1.0	40	120 #	40M§Δ		300nØ☑		MT42a	A
34	JAN2N3999†	333m§	2.0	§S	5.0		100	8.0	80	5.0u§	2.0Ø	1.0	80	240 #	40M§Δ		300nØ☑		MT42a	A
35	2N4111	333m#	30 Ø	§J	5.0	2.0	100	8.0	60	2.0m#	5.0Ø	2.0	40	120 #	50M§Δ				TO3	AØ
36	2N4112	333m#	30 Ø	§J	5.0	2.0	100	8.0	60	2.0m#	5.0Ø	2.0	100	300 #	60M§Δ				TO3	AØ
37	2N4113	333m#	30 Ø	§J	5.0	2.0	120	8.0	80	2.0m#	5.0Ø	2.0	40	120 #	50M§Δ				TO3	AØ
38	2N4114	333m#	30 Ø	§J	5.0	2.0	120	8.0	80	2.0m#	5.0Ø	2.0	100	300 #	60M§Δ				TO3	AØ
39	2N5002	333m#	50 Ø	§J	5.0	2.0	100	6.0	80	1.0m#	5.0Ø	2.5	30	90 #	60M§Δ				TO59	A
40	2N5004	333m#	50 Ø	§J	5.0	2.0	100	6.0	80	1.0m#	5.0Ø	2.5	70	200 #	70M§Δ				TO59	A
41	2N5284	333m#	50 Ø	§J	5.0	2.0	120	6.0	80	1.0m#	5.0Ø	2.5	30	90 #	60M§Δ				TO59	A
42	2N5285	333m#	50 Ø	§J	5.0	2.0	120	6.0	80	1.0m#	5.0Ø	2.5	70	200 #	70M§Δ				TO59	A
43	2N5328†	333m§	30 Ø	§J	10	2.0	100	5.0	80		2.0Ø	1.0	100	300	100M§Δ	120m	200nØ		TO59	A
44#	2SO12	333m	38 Ø	§J	2.0	500m	60	10			10Ø	1.0	10		10M§	5.0		D	MS3	
45#	2SC646	333m§	25 Ø	§J	4.0		60	5.0	60	10u	4.0Ø	2.5	20	200	50M§	380m		DM	TO3	CØ
46#	2SD26	333m	50 Ø	§J	7.0		40	5.0	30	100uØ	4.0Ø	5.0	5.0	100				PE	TO3	CØ
47#	2SD26A	333m	50 Ø	§J	7.0		60	5.0	40	100uØ	4.0Ø	5.0	5.0	100				PE	TO3	CØ
48#	2SD26B	333m	50 Ø	§J	7.0		100	5.0	60	100uØ	4.0Ø	5.0	5.0	100				PE	TO3	CØ
49#	2SD26C	333m	50 Ø	§J	7.0		150	5.0	80	100uØ	4.0Ø	5.0	5.0	100				PE	TO3	CØ
50#	2SD50	333m	50 Ø	§J	6.0	3.0	100	10	55	15uØ	4.0Ø	1.5	15	60	1.5k†			D	TO3	
51#	2SD174	333m	50 Ø	§J	5.0	3.0	60	6.0	40	20uØ	4.0Ø	5.0	10	60 *	1.2M†			D	TO3	
52#	2SD175	333m	50 Ø	§J	5.0	3.0	100	6.0	60	20uØ	4.0Ø	5.0	10	60 *	1.2M†	3.0		D	TO3	
53#	2SD198	333m§	25 Ø	§J	1.0	500m	300	6.0	300 §	5.0mØ	5.0Ø	300m	30		25M§			DM	TO3	CØ
54#	2SD199	333m	25 Ø	§J	250m	500m	800	6.0	550	1.0m	10Ø	200m	30		18M§			DM	TO3	
55	1718-0602	333m§	33 §	§J	10 #	2.0	60	7.0	60 ☑	200u	2.0Ø	2.0	20 #		40M§Δ		300nØ☑	EMΔ	TO111	
56	1718-0605	333m§	33 §	§J	10 #	2.0	60	7.0	60 ☑	200u	2.0Ø	5.0	20 #		40M§Δ		400nØ☑	EMΔ	TO111	
57	1718-0802	333m§	33 §	§J	10 #	2.0	80	7.0	80 ☑	200u	2.0Ø	2.0	20 #		40M§Δ		300nØ☑	EMΔ	TO111	
58	1718-0805	333m§	33 §	§J	10 #	2.0	80	7.0	80 ☑	200u	2.0Ø	5.0	20 #		40M§Δ		400nØ☑	EMΔ	TO111	
59	1718-1002	333m§	33 §	§J	10 #	2.0	100	7.0	100 ☑	200u	2.0Ø	2.0	20 #		40M§Δ		300nØ☑	EMΔ	TO111	
60	1718-1005	333m§	33 §	§J	10 #	2.0	100	7.0	100 ☑	200u	2.0Ø	5.0	20 #		40M§Δ		400nØ☑	EMΔ	TO111	
61	1718-1202	333m§	33 §	§J	10 #	2.0	120	7.0	120 ☑	200u	2.0Ø	2.0	20 #		40M§Δ		300nØ☑	EMΔ	TO111	
62	1718-1205	333m§	33 §	§J	10 #	2.0	120	7.0	120 ☑	200u	2.0Ø	5.0	20 #		40M§Δ		400nØ☑	EMΔ	TO111	
63	1718-1402	333m§	33 §	§J	10 #	2.0	140	7.0	140 ☑	200u#	2.0Ø	2.0	20 #		40M§Δ		300nØ☑	EMΔ	TO111	
64	1718-1405	333m§	33 §	§J	10 #	2.0	140	7.0	140 ☑	200u#	2.0Ø	5.0	20 #		40M§Δ		400nØ☑	EMΔ	TO111	
65	1718-1602	333m§	33 §	§J	10 #	2.0	160	7.0	160 ☑	200u#	2.0Ø	2.0	20 #		40M§Δ		300nØ☑	EMΔ	TO111	
66	1718-1605	333m§	33 §§	J	10 #	2.0	160	7.0	160 ☑	.20m#	2.0Ø	5.0	20 #		40M§Δ		.4uØ☑	EMΔ	TO111	
67	1718-1802	333m§	33 §	§J	10 #	2.0	180	7.0	180 ☑	200u#	2.0Ø	2.0	20 #		40M§Δ		300nØ☑	EMΔ	TO111	
68	2849-2†	333m	2.0	§S	3.0		100	5.0	80	100n§	1.0Ø	1.0	100 #		30M§Δ				TO59	Ø
69	2850-2†	333m	2.0	§A	3.0		100	5.0	80	100n§	1.0Ø	500m	50 Ø		40M§			PL	TO59	AØ
70	2851-2†	333m	2.0	§A	3.0		100	5.0	80	100n§	1.0Ø	500m	50 Ø		60M§			PL	TO59	AØ
71	2852-2†	333m	2.0	§A	3.0		100	5.0	80	100n§	1.0Ø	500m	25 Ø		30M§			PL	TO59	AØ
72	2853-2†	333m	2.0	§A	3.0		60	5.0	40	100n§	1.0Ø	1.0 Δ	85 Ø		40M§			PL	TO59	AØ
73	2854-2†	333m	2.0	§A	3.0		60	5.0	40	100n§	1.0Ø	500m	90 Ø		50M§			PL	TO59	AØ
74	2855-2†	333m	2.0	§A	3.0		60	5.0	40	100n§	1.0Ø	500m	50 Ø		40M§			PL	TO59	AØ
75	2856-2†	333m	2.0	§A	3.0		60	5.0	40	100n§	1.0Ø	500m	25 Ø		30M§			PL	TO59	AØ
76	B3547	333m	30 Ø§	§C	5.0		60	8.0	40	1.0uØ		1.0 Ø	20	60		500m		PE	TO59	
77	B3548	333m	30 Ø§	§C	5.0		80	8.0	60	1.0uØ		1.0 Ø	20	60		500m		PE	TO59	
78	B3549	333m	30 Ø§	§C	5.0		100	8.0	80	1.0uØ		1.0 Ø	20	60		500m		PE	TO59	
79	B3550	333m	30 Ø§	§C	5.0		60	8.0	40	1.0uØ		1.0 Ø	40	120		500m		PE	TO59	
80	B3551	333m	30 Ø§	§C	5.0		80	8.0	60	1.0uØ		1.0	40	120		500m		PE	TO59	
81	B3552	333m	30 Ø§	§C	5.0		100	8.0	80	1.0uØ		1.0	40	120		500m		PE	TO59	
82	B3553	333m	30 Ø§	§C	5.0		60	8.0	40	1.0uØ		1.0	100			500m		PE	TO59	
83	B3554	333m	30 Ø§	§C	5.0		80	8.0	60	1.0uØ		1.0	100			500m		PE	TO59	
84	B3555	333m	30 Ø§	§C	5.0		100	8.0	80	1.0uØ		1.0	100			500m		PE	TO59	
85	B3577	333m	40 Ø§	§C	5.0		100	5.0	50	1.0uØ		1.0	10		30M§	1.0		PE	TO59	
86	B3578	333m	40 Ø§	§C	5.0		80	8.0	40	1.0uØ		1.0	20	60	30M§	500m		PE	TO59	
87	B3579	333m	40 Ø§	§C	5.0		100	8.0	80	1.0uØ		1.0	20	60	30M§	500m		PE	TO59	
88	B3580	333m	40 Ø§	§C	5.0		80	8.0	40	1.0uØ		1.0	40	120	30M§	500m		PE	TO59	
89	B3581	333m	40 Ø§	§C	5.0		100	8.0	80	1.0uØ		1.0	40	120	30M§	500m		PE	TO59	
90	B3582	333m	40 Ø§	§C	5.0		80	8.0	40	1.0uØ		1.0	100		30M§	500m		PE	TO59	
91	B3583	333m	40 Ø§	§C	5.0		100	8.0	80	1.0uØ		1.0	100		30M§	500m		PE	TO59	
92	B3584	333m	40 Ø§	§C	5.0		60	5.0	40	1.0uØ		1.0	20	60	30M§	500		PE	TO59	
93	B144000	333m	25	§J	10	2.0	50	5.0	40	1.0m§	10Ø	3.0	45	90			2.0u	Δ	TO59	A
94	B144001	333m	25	§J	10	2.0	50	5.0	40	1.0m§	10Ø	3.0	70	140			2.0u	Δ	TO59	A
95	B144002	333m	25	§J	10	2.0	50	5.0	40	1.0m§	10Ø	3.0	120	240			2.0u	Δ	TO59	A
96	B144003	333m	25	§J	10	2.0	70	5.0	60	1.0m§	10Ø	3.0	45	90			2.0u	Δ	TO59	A
97	B144004	333m	25	§J	10	2.0	70	5.0	60	1.0m§	10Ø	3.0	70	140			2.0u	Δ	TO59	A
98	B144005	333m	25	§J	10	2.0	70	5.0	60	1.0m§	10Ø	3.0	120	240			2.0u	Δ	TO59	A
99	B144006	333m	25	§J	10	2.0	90	5.0	80	1.0m§	10Ø	3.0	45	90			2.0u	Δ	TO59	A
100	B144007	333m	25	§J	10	2.0	90	5.0	80	1.0m§	10Ø	3.0	70	140			2.0u	Δ	TO59	A
101	B144008	333m	25	§J	10	2.0	90	5.0	80	1.0m§	10Ø	3.0	120	240			2.0u	Δ	TO59	A
102	B145000	333m	25	§J	10	2.0	50	5.0	40	1.0m§	10Ø	3.0	45	90			2.0u	Δ	TO61	A
103	B145001	333m	25	§J	10	2.0	50	5.0	40	1.0m§	10Ø	3.0	70	140			2.0u	Δ	TO61	A
104	B145002	333m	25	§J	10	2.0	50	5.0	40	1.0m§	10Ø	3.0	120	240			2.0u	Δ	TO61	A
105	B145003	333m	25	§J	10	2.0	70	5.0	60	1.0m§	10Ø	3.0	45	90			2.0u	Δ	TO61	A
106	B145004	333m	25	§J	10	2.0	70	5.0	60	1.0m§	10Ø	3.0	70	140			2.0u	Δ	TO61	A
107	B145005	333m	25	§J	10	2.0	70	5.0	60	1.0m§	10Ø	3.0	120	240			2.0u	Δ	TO61	A
108	B145006	333m	25	§J	10	2.0	90	5.0	80	1.0m§	10Ø	3.0	45	90			2.0u	Δ	TO61	A
109	B145007	333m	25	§J	10	2.0	90	5.0	80	1.0m§	10Ø	3.0	70	140			2.0u	Δ	TO61	A
110	B145008	333m	25	§J	10	2.0	90	5.0	80	1.0m§	10Ø	3.0	120	240			2.0u	Δ	TO61	A

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O A D E
1	B145009	333m	25	§J	10	2.0	50	5.0	40	1.0m§							2.0u	Δ	TO61		A
2	B145010	333m	25	§J	10	2.0	50	5.0	40	1.0m§							2.0u	Δ	TO61		A
3	B145011	333m	25	§J	10	2.0	70	5.0	60	1.0m§							2.0u	Δ	TO61		A
4	B145012	333m	25	§J	10	2.0	70	5.0	60	1.0m§							2.0u	Δ	TO61		A
5	B145013	333m	25	§J	10	2.0	90	5.0	80	1.0m§							2.0u	Δ	TO61		A
6	B145014	333m	25	§J	10	2.0	90	5.0	80	1.0m§							2.0u	Δ	TO61		A
7#	BUY14	333m	15 Ø*	$J	8.0		80	5.0	60	200u	1.7Ø	6.0	11	25 Ø	11M§			ME	MD17b		
8#	DT3200	333m	15		5.0	330m	45	8.0	30	15u	5.0Ø	3.0	15	45		600m		D	TO8		
9#	DT3201	333m	15		5.0	330m	80	8.0	60	15u	5.0Ø	3.0	15	45		600m		D	TO8		
10#	DT4011	333m§	30 Ø	§	5.0	1.0	100	8.0	70	50u	5.0Ø	3.0	20	70		500m		D	TO3		
11	MHT6308	333m$	30 Ø	§J	5.0	500m	60	8.0	40	1.0u	2.0Ø	1.0	20	60 #	30M§	500m		PLD	MT42		
12	MHT6309	333m$	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	2.0Ø	1.0	20	60 #	30M§	500m		PLD	MT42		
13	MHT6310	333m$	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	20	60 #	30M§	500m		PLD	MT42		
14	MHT6311	333m$	30 Ø	§J	5.0	500m	60	8.0	40	1.0u	2.0Ø	1.0	40	120 #	30M§	500m		PLD	MT42		
15	MHT6312	333m$	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	2.0Ø	1.0	40	120 #	30M§	500m		PLD	MT42		
16	MHT6313	333m$	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	40	120 #	30M§	500m		PLD	MT42		
17	MHT6314	333m$	30 Ø	§J	5.0	500m	60	8.0	40	1.0u	2.0Ø	1.0	100 #		30M§	500m		PLD	MT42		
18	MHT6315	333m$	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	2.0Ø	1.0	100 #		30M§	500m		PLD	MT42		
19	MHT6316	333m$	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	100 #		30M§	500m		PLD	MT42		
20	MHT6408	333m$	30 Ø	§J	5.0	500m	60	8.0	40	1.0u	2.0Ø	1.0	20	60 #	30M§	500m		PLD	MT53	GN	
21	MHT6409	333m$	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	2.0Ø	1.0	20	60 #	30M§	500m		PLD	MT53	GN	
22	MHT6410	333m$	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	20	60 #	30M§	500m		PLD	MT53	GN	
23	MHT6411	333m$	30 Ø	§J	5.0	500m	60	8.0	40	1.0u	2.0Ø	1.0	40	120 #	30M§	500m		PLD	MT53	GN	
24	MHT6412	333m$	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	2.0Ø	1.0	40	120 #	30M§	500m		PLD	MT53	GN	
25	MHT6413	333m$	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	40	120 #	30M§	500m		PLD	MT53	GN	
26	MHT6414	333m$	30 Ø	§J	5.0	500m	60	8.0	40	1.0u	2.0Ø	1.0	100 #		30M§	500m		PLD	MT53	GN	
27	MHT6415	333m$	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	2.0Ø	1.0	100 #		30M§	500m		PLD	MT53	GN	
28	MHT6416	333m$	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	100 #		30M§	500m		PLD	MT53	GN	
29	NS9002†	333m$	30 Ø	§J	5.0	500m	100	8.0	80	200nØ	5.0Ø	1.0	30		20M§Δ	250m	250u†Ø	PL	MT42	AØ	
30	SDT3401†	333m	2.0	§J	5.0	2.0	40	6.0	40	10u#	5.0Ø	2.0	40	120 #	40M§Δ		500n	PE	TO111		
31	SDT3402†	333m	2.0	§J	5.0	2.0	60	6.0	60	10u#	5.0Ø	2.0	40	120 #	40M§Δ		500n	PE	TO111		
32	SDT3403†	333m	2.0	§J	5.0	2.0	80	6.0	80	10u#	5.0Ø	2.0	40	120 #	40M§Δ		500n	PE	TO111		
33	SDT3404†	333m	2.0	§J	5.0	2.0	100	6.0	100	10u#	5.0Ø	2.0	40	120 #	40M§Δ		500n	PE	TO111		
34	SDT3405†	333m	2.0	§J	5.0	2.0	40	6.0	40	10u#	5.0Ø	2.0	20	60 #	40M§Δ		500n	PE	TO111		
35	SDT3406†	333m	2.0	§J	5.0	2.0	60	6.0	60	10u#	5.0Ø	2.0	20	60 #	40M§Δ		500n	PE	TO111		
36	SDT3407†	333m	2.0	§J	5.0	2.0	80	6.0	80	10u#	5.0Ø	2.0	20	60 #	40M§Δ		500n	PE	TO111		
37	SDT3408†	333m	2.0	§J	5.0	2.0	100	6.0	100	10u#	5.0Ø	2.0	20	60 #	40M§Δ		500n	PE	TO111		
38	SDT3409†	333m	2.0	§J	5.0	2.0	120	6.0	120	10u#	5.0Ø	2.0	20	60 #	40M§Δ		500n	PE	TO111		
39	ST18015	333m	30 Ø	§J	5.0		375	10	375		10	2.5	20		10M	500m		PE	TO59		
40	ST18016	333m	30 Ø	§J	5.0		300	10	300			2.5	20		10M	500m		PE	TO59		
41	ST18017	333m	30 Ø	§J	5.0		250	10	250		10	2.5	20		10M	500m		PE	TO59		
42	ST18018	333m	30 Ø	§J	5.0		200	10	200		10	2.5	20		10M	500m		PE	TO59		
43	ST92006	333m	30 Ø	§J	2.0		125	10	80	20u	10	1.0	20	120	10M	2.0	1.5u	P	TO59		
44	ST92007	333m	30 Ø	§J	2.0		145	10	100	20u	10	1.0	20	120	10M	2.0		P	TO59		
45	ST92008	333m	30 Ø	§J	2.0		170	10	120	20u	10	1.0	20	120	10M	2.0	1.5u	P	TO59		
46	STT6309	333m	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	5.0Ø	1.0	20	60 #	30M§			PL	TO111		
47	STT6310	333m	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	5.0Ø	1.0	20	60 #	30M§			PL	TO111		
48	STT6312	333m	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	5.0Ø	1.0	40	120 #	30M§			PL	TO111		
49	STT6313	333m	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	5.0Ø	1.0	40	120 #	30M§			PL	TO111		
50	STT6315	333m	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	5.0Ø	1.0	100 #		30M§			PL	TO111		
51	STT6316	333m	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	5.0Ø	1.0	100 #		30M§			PL	TO111		
52	STT6409	333m	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	5.0Ø	1.0	20	60 #	30M§			PL	TO111		
53	STT6410	333m	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	5.0Ø	1.0	20	60 #	30M§			PL	TO111		
54	STT6412	333m	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	5.0Ø	1.0	40	120 #	30M§			PL	TO111		
55	STT6413	333m	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	5.0Ø	1.0	40	120 #	30M§			PL	TO111		
56	STT6415	333m	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	5.0Ø	1.0	100 #		30M§			PL	TO111		
57	STT6416	333m	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	5.0Ø	1.0	100 #		30M§			PL	TO111		
58	2N5643	342m	60 Ø	§S	5.0		65	4.0	35	1.0mØ	5.0Ø	500m	5.0		200M§Δ				MT72h	R	
59	3TE609	343m	60 Ø	§J	8.0	3.0	80	4.0	60	1.0mΔ	5.0Ø	1.0	10	75	330M§	333m		PE	MT62a	FØ	
60	2N1079	344m	60 Ø	§C	3.0	500m	60	10	60 Ø	10m	5.0Ø	1.0	20	80				D	TO53	AØ	
61	2N1080	344m	60 Ø	§C	3.0	500m	60	10	60 Ø	10m	10Ø	2.0	20	80				D	TO53	AØ	
62	2N5214	344m	60 Ø	§C	5.0	2.0	95	4.0	95	1.0m♦Ø	5.0Ø	1.0	10	75	150M§	330m			MT62a	FØ	
63	2N5346†	344m	60 Ø	§J	7.0	1.0	80	6.0	80	10u	2.0Ø	2.0	30	120	30M§Δ		100uØ		TO59	A	
64	2N5347†	344m	60 Ø	§J	7.0	1.0	80	6.0	80	10u	2.0Ø	2.0	60	240	30M§Δ		100uØ		TO59	A	
65	2N5348†	344m	60 Ø	§J	7.0	1.0	100	6.0	100	10u	2.0Ø	2.0	30	120	30M§Δ		100uØ		TO59	A	
66	2N5349†	344m	60 Ø	§J	7.0	1.0	100	6.0	100	10u	2.0Ø	2.0	60	240	30M§Δ		100uØ		TO59	A	
67	2N5477	344m	60 Ø	§J	7.0	1.0	80	6.0	80	10u	2.0Ø	2.0	30	120 #	30M§Δ		100uØ		TO59	CØ	
68	2N5478	344m	60 Ø	§J	7.0	1.0	80	6.0	80	10u	2.0Ø	2.0	60	240 #	30M§Δ		100uØ		TO59	CØ	
69	2N5479	344m	60 Ø	§J	7.0	1.0	100	6.0	100	10u	2.0Ø	2.0	30	120 #	30M§Δ		100uØ		TO59	CØ	
70	2N5480	344m	60 Ø	§J	7.0	1.0	100	6.0	100	10u	2.0Ø	2.0	60	240 #	30M§Δ		100uØ		TO59	CØ	
71#	2SD217	357mØ	60 Ø	§J	7.0	2.0	120	7.0	80	2.0mØ	5.0Ø	4.0	25 #	60 #				EM	TO3		
72#	2SD218	357mØ	60 Ø	§J	7.0	2.0	150	7.0	100	2.0mØ	5.0Ø	4.0	30 #	60 #				EM	TO3		
73	2N4115	361m#	37 Ø	§J	5.0	2.0	120	8.0	80	2.0m#	5.0Ø	2.0	40	120	50M§Δ	300m			MT43a	A	
74	2N4116	361m#	37 Ø	§J	5.0	2.0	120	8.0	80	2.0m#	5.0Ø	2.0	100	300	70M§Δ	300m			MT43a	A	
75	2N1210	400m$	30 Ø	§S	5.0		60	8.0	60	10mØ	12Ø	2.0	15	75 #	15k†	1.0	1.2u	D	MS2		
76	2N1211	400m$	30 Ø	§S	5.0		80	8.0	80	10mØ	12Ø	1.0	15	75 #	15k†	1.0	1.2u	D	MS2		
77	2N1616	400m$	30 Ø	§J	5.0		60	8.0	60	10mØ	12Ø	2.0	15	75 #	15k†	1.0	1.0u		TO61	AØ	
78	2N1617	400m$	30 Ø	§S	5.0		80	8.0	70	10mØ	12Ø	2.0	15	75 #	15k†	1.0	1.0u		TO61	AØ	
79	2N1618	400m$	30 Ø	§S	5.0		100	8.0	80	10mØ	12Ø	2.0	15	75 #	15k†	1.0	1.0u		TO61	AØ	
80	2N1620	400m$	30 Ø	§J	5.0		100	8.0	80	10mØ	12Ø	2.0	15	75 #	15k†	1.0	1.0u		MS2		
81	2N2150	400m$	30 Ø	§J	2.0	1.0	125	8.0	80	5.0u#	5.0Ø	1.0	20	60 #	10M§Δ				TO111	AØ	
82	JAN2N2150	400m$	30 Ø	§A	2.0	2.0	150	8.0	100	100u	5.0Ø	1.0	20	60	10M§Δ				MT21	AØ	
83	2N2151	400m$	30 Ø	§J	2.0	1.0	125	8.0	80	5.0u#	5.0Ø	1.0	40	120 #	10M§Δ				TO111	AØ	
84	JAN2N2151	400m$	30 Ø	§A	2.0	2.0	150	8.0	100	100u	5.0Ø	1.0	40	120	10M§Δ				MT21	AØ	
85	2N2811	400m	70 Ø	§J	10	2.0	80	8.0	60	100nØ	5.0Ø	5.0	20	60 #	15M§Δ	100m	200nØ	PL	MT29		
86	2N2812	400m	70 Ø	§J	10	2.0	80	8.0	60	100nØ	5.0Ø	5.0	40	120 #	15M§Δ	100m	150nØ	PL	MT29		
87	2N2813	400m	70 Ø	§J	10	2.0	120	8.0	80	100nØ	5.0Ø	5.0	20	60 #	15M§Δ	100m	200nØ	PL	MT29		
88	2N2814	400m	70 Ø	§J	10	2.0	120	8.0	80	100nØ	5.0Ø	5.0	40	120 #	15M§Δ	100m	150nØ	PL	MT29		
89	2N3220	400m	2.0	§C	2.0	1.0	100	8.0	80	10u#	5.0Ø	1.0	20	60 #	10M§Δ	1.3			MT47		
90	2N3221	400m	2.0	§C	2.0	1.0	100	8.0	80	10u#	5.0Ø	1.0	40	120 #	10M§Δ	1.3			MT47		
91	2N3222	400m	2.0	§C	2.0	1.0	80	8.0	60	10u#	5.0Ø	1.0	20	60 #	10M§Δ	1.3			MT47		
92	2N3223	400m	2.0	§C	2.0	1.0	80	8.0	60	10u#	5.0Ø	1.0	40	120 #	10M§Δ	1.3			MT47		
93	2N3543	400mØ	60	§S	5.0	.50	65	4.0	60	.01mØ	5.0Ø	4.5	10 #	80	150M§Δ	.22			TO3	CØ	
94	2N3950	400m	70 Ø	§S	3.3 †		65 †	4.0†	35 *	10m♦					100M§Δ				TO60	AØ	
95	2N4004†	400m	1.2	§J	20	10	100	8.0	80	1.0m§Ø	4.0Ø	10	30	150 #	30M§Δ				X21		
96	2N4005†	400m	1.2	§J	20	10	120	8.0	100	1.0m§Ø	4.0Ø	10	30	150 #	30M§Δ				X21		
97	2N4131	400m	60 Ø	§J	5.0	1.0	90	4.0	80	10uØ	5.0Ø	1.0	10	80 #	150M§Δ				TO3	DØ	
98	2N4932	400m	70 Ø	§J	3.3	1.0	50	4.0	25		5.0Ø	1.0	10	100	100k§Δ				TO60	AØ	
99	2N4933	400m	70 Ø	§J	3.3	1.0	70	4.0	35		5.0Ø	1.0	10	100	100k§Δ				TO60	A	
100	2N5070	400m	70 Ø	§J	3.3	1.0	65	4.0	30	10mØ	5.0Ø	3.0	10	100	100M§Δ				TO60	AØ	
101	2N5071	400m	70 Ø	§J	3.3	1.0	65	4.0	30	10mØ	5.0Ø	3.0	10	100	100M§Δ				TO60	AØ	
102	2N5074	400m	70 Ø	§J	3.0	300m	200	6.0	200	1.0m#†	5.0Ø	500m	30	110 #	40M§Δ	670m			TO59	A	
103	2N5075	400m	70 Ø	§J	3.0	300m	200	6.0	200	1.0m#†	5.0Ø	500m	90	250 #	40M§Δ	670m			TO59	A	
104	2N5076	400m	70 Ø	§J	3.0	300m	250	6.0	250	1.0m#†	5.0Ø	500m	30	110 #	40M§Δ	670m			TO59	A	
105	2N5077	400m	70 Ø	§J	3.0	300m	250	6.0	250	1.0m#†	5.0Ø	500m	90	250 #	40M§Δ	670m			TO59	A	
106	2N5468	400m$	40 Ø	§J	3.0	1.0	500	8.0	400	1.0mΔ	5.0Ø	3.0	15	60 #	2.5M§Δ				TO66	AØ	
107	2N5469	400m$	40 Ø	§J	3.0	1.0	700	8.0	400	1.0mΔ	5.0Ø	3.0	15	60 #	2.5M§Δ				TO66	AØ	
108	2N5591	400m	70 Ø	§S	4.0		36	4.0	18	1.0mØ	5.0Ø	500m	5.0		200M§Δ				MT72h	R	
109▼	2N5707	400m	70 Ø	§J	4.0		70 †	4.0†	50	5.0m§†	10Ø	100m	5.0	50	50M§Δ				TO128	V	
110#	2SC41	400m		§J	5.0	1.5	150	6.0		60m	10Ø	1.0	12	92	20M†	2.0		ME	TO3		

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AE XM P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	LC EO AD DE
1#	2SC42	400m		$J	5.0	1.5	150	6.0		60m	10Ø	1.0	4.0	185	20M†	2.0		ME	TO3	
2#	2SC42A	400m	50 Ø	$J	5.0	1.5	200	6.0	75	30uØ	10Ø	1.0	12	128	20M§	400m	500n	ME	TO3	
3#	2SC43	400m		$J	5.0	1.5	150	6.0		60m	10Ø	1.0	4.0	185	20M†	2.0		ME	TO3	
4#	2SC44	400m		$J	5.0	1.5	150	6.0		60mØ	10Ø	1.0	4.0	185	20M†	2.0		ME	TO3	
5#	2SC270	400m	50 Ø	$J	5.0	1.5	270	6.0	75	1.0mØ	3.0Ø	2.0	24	92	20M§	300m	500n	ME	TO3	
6#	2SC493	400m	50 Ø	$J	5.0	5.0 Ø	80	5.0	80	10mØ	5.0Ø	1.0	20	200 *	10M§	500m		DM	TO3	CØ
7#	2SC494	400m	50 Ø	$J	5.0	5.0 Ø	50	5.0	50	10m	5.0Ø	1.0	20	200 *	10M§	500m		DM	TO3	CØ
8♦#	2SC518	400m	50 Ø	$J	5.0	5.0 Ø	140	5.0	140	10mØ	5.0Ø	5.0	20	40 Ø	20M†	300m		DM	TO3	CØ
9#	2SC518A	400m	50 Ø	$J	5.0		180	5.0	180 Ø	1.0mØ	5.0Ø	5.0	40 Ø		40M			ME	TO3	
10#	2SC519A†	400m	50 Ø	$J	7.0	7.0 Ø	130	5.0	110	1.0mØ	5.0Ø	1.0	20		20M†	400m	200n	DM	TO3	CØ
11#	2SC520A†	400m	50 Ø	$J	7.0	7.0 Ø	100	5.0	80	1.0mØ	5.0Ø	1.0	30		20M†	400m	200n	DM	TO3	CØ
12#	2SC521A†	400m	50 Ø	$J	7.0	7.0 Ø	70	5.0	50	1.0mØ	5.0Ø	1.0	30		20M†	400m	200n	DM	TO3	CØ
13#	2SC558	400m	50 Ø	$J	5.0	5.0 Ø	250	5.0	250 Ø	1.0mØ	5.0Ø	5.0	20	40 Ø	20M†	400m	200n	DM	TO3	CØ
14#	2SC642	400m	50 Ø	$J	1.0		1.1k	5.0		10uØ	15Ø	150m	30	160	500M			ME	TO3	CØ
15#	2SC643	400m	50 Ø	$J	2.5		1.1k	5.0		10uØ	15Ø	2.0	7.0		200k			ME	TO3	CØ
16#	2SC769	400m	50 Ø§	$J	10		120	5.0	80	1.0mØ	4.0Ø	2.0	10	110				ME	TO3	CØ
17#	2SC770	400m	50 Ø	$J	10		200	5.0	100	1.0mØ	4.0Ø	2.0	10	110				ME	TO3	CØ
18#	2SC1004	400m	50 Ø	$J	500m		1.1k		700 §	10u	15Ø	150m	30	160	2.0M†			ME	TO3	CØ
19#	2SD45	400m	50 Ø	$J	5.0	1.5	150	6.0	100	15mØ	10Ø	1.0	12	128	20M§	600m		ME	TO3	
20#	2SD46	400m	50 Ø	$J	5.0	1.5	150	6.0	75	15mØ	10Ø	1.0	12	184	20M§	600m		ME	TO3	
21#	2SD47	400m	50 Ø	$J	5.0	1.5	100	6.0	50	15mØ	10Ø	1.0	12	184	20M§	600m		ME	TO3	
22#	2SD59	400m	50 Ø	§J	6.0		100	5.0	60	30uØ	4.0Ø	1.0	35	180	3.0M†			D	TO3	CØ
23#	2SD60	400m	50 Ø	§J	6.0		150	10	75	30uØ	4.0Ø	1.0	35	180	3.0M†			D	TO3	CØ
24#	2SD73	400m	60 Ø	§J	7.5	1.5	100	5.0	60	5.0m	10Ø	1.0	25	80 #		400m		EM	TO3	
25#	2SD74	400m	60 Ø	§J	7.5	1.5	150	5.0	90	5.0m	10Ø	1.0	25	80 #		400m		EM	TO3	
26#	2SD80†	400m	50 Ø	§J	6.0	3.0	30	10	20	200u	4.0Ø	1.0	40	60 Ø	1.5M†Δ	500m	1.2u	D	TO3	CØ
27#	2SD81†	400m	50 Ø	§J	6.0	3.0	60	10	40	50uØ	4.0Ø	1.0	40	60 Ø	1.5M†Δ	500m	1.2u	D	TO3	CØ
28#	2SD82†	400m	50 Ø	§J	6.0	3.0	100	10	60	30uØ	4.0	1.0	40	60 Ø	1.5M†Δ	500m	1.2u	D	TO3	CØ
29#	2SD83†	400m	50 Ø	§J	6.0	3.0	150	10	75	30uØ	4.0	1.0	40	60 Ø	1.5M†Δ	500m	1.2u	D	TO3	CØ
30#	2SD84†	400m	50 Ø	§J	6.0	3.0	200	10	85	30uØ	4.0	1.0	40	60 Ø	1.5M†Δ	500m	1.2u	D	TO3	CØ
31#	2SD124AH	400m	60 Ø	§J	7.0	3.0	75	10	50	25uØ	4.0Ø	1.5	20	80	12k	200m		D	TO3	CØ
32#	2SD125AH	400m	60 Ø	§J	7.0	3.0	100	10	75	25uØ	4.0Ø	1.5	20	80	12k	200m		D	TO3	CØ
33#	2SD126H	400m	60 Ø	§J	7.0	3.0	150	5.0	100	25uØ	4.0Ø	1.5	20	40 Ø	12k			D	TO3	CØ
34#	2SD180	400mØ	50 Ø	§J	5.0	2.0	80	7.0	60	2.0m	2.0Ø	3.0	30		20k§Δ			EM	TO3	
35#	2SD200	400m	10 Ø♦	♦J	2.5	2.5	1.5k	5.0	1.5kØ	1.0m	5.0Ø	2.0	2.5				700n#	PLΔ	TO3	CØ
36#	184T2C	400m	85 Ø	§J	6.0	3.0	400	10	200	1.0m§Ø	4.0Ø	2.0	75	180	10M§Δ			☑	TO3	CØ
37	40340	400m	70 Ø	§J	3.3		60	4.0	25	10mØ								PE	TO60	AØ
38	40341	400m	70 Ø	§J	3.3		70	4.0	35	10mØ								PE	TO60	AØ
39	40624	400m	1.8	$A	6.0	3.0		5.0	45 ☑	500u*	4.0Ø	2.5	20	100				A	X75a	T
40	40627	400m	1.8	$A	6.0	3.0		5.0	55 ☑	500u*	4.0Ø	2.5	20	100				H	X75a	T
41	40632	400m	1.8	$A	6.0	3.0		5.0		500u*	4.0Ø	3.0	20	70				H	X75a	T
42	A705	400m	10 Ø$	♦J	2.5	2.5	750	5.0	750 §	1.0m§					7.5M§		500n#	Δ	TO3	CØ
43	B146000	400m	25	§J	10	2.0	50	5.0	40	1.0m§	10Ø	3.0	45	90		2.0u		Δ	TO61	AØ
44	B146001	400m	25	§J	10	2.0	50	5.0	40	1.0m§	10Ø	3.0	70	140		2.0u		Δ	TO61	AØ
45	B146002	400m	25	§J	10	2.0	50	5.0	40	1.0m§	10Ø	3.0	120	240		2.0u		Δ	TO61	AØ
46	B146003	400m	25	§J	10	2.0	70	5.0	60	1.0m§	10Ø	3.0	45	90		2.0u		Δ	TO61	AØ
47	B146004	400m	25	§J	10	2.0	70	5.0	60	1.0m§	10Ø	3.0	70	140		2.0u		Δ	TO61	AØ
48	B146005	400m	25	§J	10	2.0	70	5.0	60	1.0m§	10Ø	3.0	120	240		2.0u		Δ	TO61	AØ
49	B146006	400m	25	§J	10	2.0	90	5.0	80	1.0m§	10Ø	3.0	45	90		2.0u		Δ	TO61	AØ
50	B146007	400m	25	§J	10	2.0	90	5.0	80	1.0m§	10Ø	3.0	70	140		2.0u		Δ	TO61	AØ
51	B146008	400m	25	§J	10	2.0	90	5.0	80	1.0m§	10Ø	3.0	120	240		2.0u		Δ	TO61	AØ
52	B146009	400m	25	§J	10	2.0	50	5.0	40	1.0m§						2.0u		Δ	TO61	AØ
53	B146010	400m	25	§J	10	2.0	50	5.0	40	1.0m§						2.0u		Δ	TO61	AØ
54	B146011	400m	25	§J	10	2.0	70	5.0	60	1.0m§						2.0u		Δ	TO61	AØ
55	B146012	400m	25	§J	10	2.0	70	5.0	60	1.0m§						2.0u		Δ	TO61	AØ
56	B146013	400m	25	§J	10	2.0	90	5.0	80	1.0m§						2.0u		Δ	TO61	AØ
57	B146014	400m	25	§J	10	2.0	90	5.0	80	1.0m§						2.0u		Δ	TO61	AØ
58#	BU105	400m§	8.0 Ø	♦J	2.5 #	2.5 #	1.5k	5.0	1.5kØ	50uØ						2.5	1.5u#	Δ	TO3	CØ
59#	DT4303	400m	30		5.0	.50	200	5.0	200 §	10m	5.0Ø	5.0	10	50		.60		D	TO3	
60#	DT4304	400m	30		5.0	.50	300	5.0	300 §	10m	5.0Ø	5.0	10	50		.60		D	TO3	
61#	DT4305	400m	30		5.0	.50	400	5.0	400 §	10m	5.0Ø	5.0	10	50		.60		D	TO3	
62#	DT4306	400m	30		5.0	.50	500	5.0	500 §	10m	5.0Ø	5.0	10	50		.60		D	TO3	
63	PT1949†	400m	50 Ø	§J	10	5.0	140	5.0	100 §		2.0Ø	10	10	30	50M§			PL	X15	
64	PT1963	400m	50 Ø	§J	10	5.0	140	5.0	100 §	10mØ	2.0Ø	10	10	30 #	50M§Δ	100m	1.5uØ	PL	MT10	
65	ST7530	400mØ		§	3.0		40	5.0	40	10m	10	.50	20	80		8.0		D	MT11	
66	ST91057	400m	40 Ø	§J	10		125	10	80	30u	10	2.0	20	120	10M	100m	2.0u	PE	TO59	
67	ST91058	400m	40 Ø	§J	10		145	10	100	30u	10	2.0	20	120	10M	100m	2.0u	PE	TO59	
68	ST91059	400m	40 Ø	§J	10		170	10	120	30u	10	2.0	20	120	10M	100m	2.0u	PE	TO59	
69	STT2800	400m$	40 Ø	§J	7.5	1.0	150	12	150	1.0u§	15Ø	2.0	30	90 #	25M§			DPLΔ	TO59	A
70	STT2801	400m$	40 Ø	§J	7.5	1.0	140	12	120	1.0u§	15Ø	2.0	30	90 #	25M§			DPLΔ	TO59	A
71	STT2802	400m$	40 Ø	§J	7.5	1.0	140	12	120	1.0u§	15Ø	2.0	50	150 #	25M§			DPLΔ	TO59	A
72	STT2803	400m$	40 Ø	§J	7.5	1.0	120	12	100	1.0u§	15Ø	2.0	30	90 #	25M§			DPLΔ	TO59	A
73	STT2804	400m$	40 Ø	§J	7.5	1.0	100	12	80	1.0u§	15Ø	2.0	30	90 #	25M§			DPLΔ	TO59	A
74	STT2805	400m$	40 Ø	§J	7.5	1.0	75	10	60	1.0u§	15Ø	2.0	30	90 #	25M§			DPLΔ	TO59	A
75	STT2806	400m$	40 Ø	§J	7.5	1.0	40	10	30	500u§	15Ø	2.0	25 #		25M§			DPLΔ	TO59	A
76	2N5178	401m	70 Ø	§J	8.0	2.0	55	3.5	35	20m#	5.0Ø	200m	10	150	200M§Δ				MD36	FØ
77	2N3018	416m$	25 Ø	§J	10	2.0	100	4.0	50	100nØ	5.0Ø	1.0	60						TO61	A
78	2N1487	424m	75 Ø	§C	6.0	3.0	60	10	40	25uØ	4.0Ø	1.5	15	45	1.0M†	2.7	1.0u	MEΔ	MD6	
79	JAN2N1487	424m	75 Ø	§J	6.0	3.0	60	10	40	25uØ	4.0Ø	1.5	15	45 #	500k†Δ			Δ	TO3	CØ
80	2N1488	424m	75 Ø	§C	6.0	3.0	100	10	55	25uØ	4.0Ø	1.5	15	45	1.0M†	2.7	1.0u	MEΔ	MD6	
81	JAN2N1488	424m	75 Ø	§J	6.0	3.0	100	10	55	25uØ	4.0Ø	1.5	15	45 #	500k†Δ			Δ	TO3	CØ
82	2N1489	424m	75 Ø	§C	6.0	3.0	60	10	40	25uØ	4.0Ø	1.5	25	75	1.0M†	1.0	1.0u	MEΔ	MD6	
83	JAN2N1489	424m	75 Ø	§J	6.0	3.0	60	10	40	25uØ	4.0Ø	1.5	25	75 #	500k†Δ			Δ	TO3	CØ
84	2N1490	424m	75 Ø	§C	6.0	3.0	100	10	55	25uØ	4.0Ø	1.5	25	75	1.0M†	1.0	1.0u	MEΔ	MD6	
85	JAN2N1490	424m	75 Ø	§J	6.0	3.0	100	10	55	25uØ	4.0Ø	1.5	25	75 #	500k†Δ			Δ	TO3	CØ
86	2N2305	424m	75 Ø	§A	6.0	3.0	60	10	40	200uØ	4.0Ø	800m	15	60		2.0			TO3	CØ
87	40369	424m	75 Ø	§J	6.0	3.0	100	10	55	10uØ	4.0Ø	1.5	25	75		800m		DΔ	TO3	CØ
88#	ZT1487	424m	75 Ø♦	§C	6.0	3.0	60	10	60 #	25uØ	4.0Ø	1.5	15	45		2.0	1.0u	D	TO3	Ø
89#	ZT1488	424m	75 Ø♦	§C	6.0	3.0	100	10	100 #	25uØ	4.0Ø	1.5	15	45		2.0	1.0u	D	TO3	Ø
90#	ZT1489	424m	75 Ø♦	§C	6.0	3.0	60	10	60 #	25uØ	4.0Ø	1.5	25	75		670m	1.0u	D	TO3	Ø
91#	ZT1490	424m	75 Ø♦	§C	6.0	3.0	100	10	100 #	25uØ	4.0Ø	1.5	25	75		670m	1.0u	D	TO3	Ø
92#	ZT1702	424m	75 Ø♦	§C	5.0	2.5	60	6.0	40	200uØ	4.0Ø	800m	15	60	1.0M†	4.0	1.2uØ	D	TO3	Ø
93	2N1702	425m	75 Ø	§J	5.0	2.5	60	6.0	40 ☑	200uØ	4.0Ø	800m	15	60	300k†Δ	4.0		Δ	MD6	CØ
94	2N1703	425m	75 Ø	§J	5.0	2.5	60	6.0	40 ☑	200uØ	4.0Ø	800m	15	60	300k†Δ	4.0		Δ	TO36	CØ
95#	2SC851	427mØ	75 Ø	§J	8.0		50	5.0	25	500uØ	5.0Ø	5.0	20	250 #	110M§Δ	200m		PE	TO3	DØ
96	2N1511	428m	75 Ø	§J	6.0	3.0	60	10	40 ☑	500u	4.0Ø	1.5	15	45	300k†	1.2			TO36	CØ
97	2N1512	428m	75 Ø	§J	6.0	3.0	100	10	55 ☑	500u	4.0Ø	1.5	15	45	300k†	1.2			TO36	CØ
98	2N1513	428m	75 Ø	§J	6.0	3.0	60	10	40 ☑	500u	4.0Ø	1.5	25	75	300k†	1.0			TO36	CØ
99	2N1514	428m	75 Ø	§J	6.0	3.0	100	10	55 ☑	500u	4.0Ø	1.5	25	75	300k†	1.0			TO36	CØ
100	2N5635	430m	7.5 Ø	§S	1.0		60	4.0	35	100uØ	5.0Ø	100m	5.0		500M§Δ				MT71b	R
101	STC1080	434m$	75 Ø	§J	3.0			10	40	10m	15Ø	1.0	12	36		750m		DΔ	TO3	CØ
102	STC1081	434m$	75 Ø	§J	3.0			10	60	10m	15Ø	1.0	12	36		750m		DΔ	TO3	CØ
103	STC1082	434m$	75 Ø	§J	3.0			10	80	10m	15Ø	1.0	12	36		750m		DΔ	TO3	CØ
104	STC1083	434m$	75 Ø	§J	5.0			10	40	10m	15Ø	2.0	10	30		500m		DΔ	TO3	CØ
105	STC1084	434m$	75 Ø	§J	5.0			10	60	10m	15Ø	2.0	10	30		500m		DΔ	TO3	CØ
106	STC1085	434m$	75 Ø	§J	5.0			10	80	10m	15Ø	2.0	10	30		500m		DΔ	TO3	CØ
107	2N2101	450m	75 Ø	§J	3.0	3.0 Ø	60	10	40	30uØ	15Ø	1.0	15	60		5.0			MT10	AØ
108	STC1550	450m$	85 Ø	§J	3.0			10	40	10m	15Ø	1.0	12	36		750m		DΔ	MT10	
109	STC1551	450m$	85 Ø	§J	3.0			10	60	10m	15Ø	1.0	12	36		750m		DΔ	MT10	
110	STC1552	450m$	85 Ø	§J	3.0			10	80	10m	15Ø	1.0	12	36		750m		DΔ	MT10	

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AEXMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUCTURE	DESCRIPTION DWG. No.	LEAD CONFIG
1	STC1553	450m$	85 Ø	§J	5.0			10	40	10m	15Ø	2.0	10	30		500m		DΔ	MT10	
2	STC1554	450m$	85 Ø	§J	5.0			10	60	10m	15Ø	2.0	10	30		500m		DΔ	MT10	
3	STC1555	450m$	85 Ø	§J	5.0			10	80	10m	15Ø	2.0	10	30		500m		DΔ	MT10	
4	STC1500	455m		§	2.5		60	6.0	40		4.0Ø	.80	15	60	2.5Mt	4.0	.90u		MT10	
5▼	2N5706	460m	80 Ø	§S	7.0		36	4.0	18	3.0mΔ	5.0Ø	100m	15						X92	R
6	2N389	476mØ	85 Ø	§J	2.0			10	60 §	10mØ	15Ø	1.0	12	60		5.0		DΔ	TO53	AØ
7	2N389A	476mØ	85 Ø	§J	3.0		60	10	60 §	10m	15Ø	1.0	12	60	2.0Mt	750m		DΔ	TO53	AØ
8	2N424A	476mØ	85 Ø	§J	3.0		80	10	80 §	10m	15Ø	1.0	12	60	2.0Mt	750m		DΔ	TO53	AØ
9	2N1260	476m	85 Ø	§J	2.0	1.0	120	10	120 §	10m	15Ø	1.0	12	60	50kΔ	10			TO53	
10#	2S012A	476m	4.0	§J	2.0	500m		12	70 §		15Ø	1.5	20	50	5.0Mt	5.0	1.5u	D	MS3	
11#	2S013A	476m	4.0	§J	1.5	500m		12	60		15Ø	1.5	15	50	5.0Mt	10		D	MS3	
12	2N1616A	480m	85 Ø	§J	7.5	2.0	60	10	60	1.0m	4.0Ø	2.0	15	45	1.5kt	500m	1.8u	D	TO61	AØ
13	2N1617A	480m	85 Ø	§J	7.5	2.0	80	10	70	1.0m	4.0Ø	2.0	15	45	1.5kt	500m	1.8u	D	TO61	AØ
14	2N1618A	480m	85 Ø	§J	7.5	20	100	10	80	1.0m	4.0Ø	2.0	15	45	1.5kt	500m	1.8u	D	TO61	AØ
15▼#	2SC793BL	480m	60 Ø	§J	7.0	7.0 Ø	100	5.0	80	1.0mØ	5.0Ø	1.0	85	200	9.0M§	460m		DM	TO3	CØ
16▼#	2SC793R	480m	60 Ø	§J	7.0	7.0 Ø	100	5.0	80	1.0mØ	5.0Ø	1.0	30	70	9.0M§	460m		DM	TO3	CØ
17▼#	2SC793Y	480m	60 Ø	§J	7.0	7.0 Ø	100	5.0	80	1.0mØ	5.0Ø	1.0	50	120	9.0M§	460m		DM	TO3	CØ
18▼#	2SD188	480m	60 Ø	§J	7.0 #	2.0	100	7.0	70	2.0mØ	2.0Ø	3.0	20	120 #		300m		EM	TO3	CØ
19	STC1024	480m		§	5.0		80	9.0	60		4.0Ø	1.5	25	75	2.5Mt	1.0	900n			
20	2N424	485m	85 Ø	§J	2.0			10	80 §	10m	15Ø	1.0	12	60		10		ME	TO53	AØ
21	2N1208	485m	85 Ø	§S	5.0		60	10	60	10m	12Ø	2.0	15			2.5			TO61	A
22	2N1209	485m	3.5 Ø	§S	5.0		45	5.0	45	20m			20	80	3.0M§Δ	2.5			TO61	A
23	2N1212	485m	3.5 Ø	§S	510		60	10	60	10m	15Ø	1.0	12	36	3.0M§Δ	5.0			TO61	AØ
24	2N1235	485m	85 Ø	§J	2.0	1.0	120	10	120 §	10m			12 #	60 Ø	50k				TO53	Ø
25	2N1250	485m	85 Ø	§S	5.0		60	10	60	10m	12Ø	2.0	15			2.5			MS2	A
26	2N2032	485m	85 Ø	§S	5.0		45	5.0	45	20m	12Ø	2.0	20		3.0M§Δ	2.5			MS3	AØ
27	2S721	485m	85 Ø	§C	2.0		60	10	60 §		15Ø	1.0	20	60	3.0M§	5.0		D	MS3	
28	2S722	485m	85 Ø	§C	2.0		100	10	100 §		15Ø	1.0	20	60	3.0M§	5.0		D	MS3	
29	2S723	485m	85 Ø	§C	2.0		60	10	60 §		15Ø	1.0	40	120	3.0M§	3.0		D	MS3	
30	2S724	485m	85 Ø	§C	2.0		100	10	100 §		15Ø	1.0	40	120	3.0M§	3.0		D	MS3	
31	STC7114	485m	85 Ø	§C	7.5		80		60		4.0Ø	2.0	50	150		380m			TO53	
32	STC7115	485m	85 Ø	§C	7.5		100		80		4.0Ø	2.0	50	150		380m			TO53	
33	STC7116	485m	85 Ø	§C	7.5		120		100		4.0Ø	2.0	50	150		380m			TO53	
34	STC7117	485m	85 Ø	§C	7.5		140		120		4.0Ø	2.0	50	150		380m			TO53	
35	STC7518	485m	85 Ø	§C	7.5		80		60		4.0Ø	2.0	50	150		380m			TO61	
36	STC7519	485m	85 Ø	§C	7.5		100		80		4.0Ø	2.0	50	150		380m			TO61	
37	STC7520	485m	85 Ø	§C	7.5		120		100		4.0Ø	2.0	50	150		380m			TO61	
38	STC7521	485m	85 Ø	§C	7.5		140		120		4.0Ø	2.0	50	150		380m			TO61	
39	JAN2N389	500m	85 Ø	§S			60	10	60	10m*	15Ø	1.0	15	60 #		5.0			TO53	A
40	JAN2N424	500m	85 Ø	§S			80	10	80	10m*Ø	15Ø	1.0	15	60 #		10			TO53	A
41	2N2383	500m	85 Ø	§S	2.0		80	8.0	60	1.0m	4.0Ø	1.5	20	60	3.0M§	670m	900n	D	MS3	
42	2N2384	500m	85 Ø	§S	5.0		80	8.0	60 §	1.0m	4.0Ø	1.5	20	60	3.0M§	670m	900n	D	MT10	
43	2N4301	500m$	50 Ø	§J	10	4.0	100	8.0	80	10u§	4.0Ø	5.0	30	120 #	40M§Δ				TO61	AØ
44	2N4395†	500m	62 Ø	§J	5.0	900m	60	4.0	40	100u	1.0Ø	2.0	50	170	4.0M§Δ	180m			TO3	CØ
45	2N4396†	500m	62 Ø	§J	5.0	900m	80	4.0	60	100u	1.0Ø	2.0	40	170	4.0M§Δ	180m			TO3	CØ
46	2N4913	500m	88 Ø	§J	5.0	1.0	40	5.0	40	10u#	2.0Ø	2.5	25	100 #	4.0M§Δ				TO3	CØ
47	2N4914	500m	88 Ø	§J	5.0	1.0	60	5.0	60	10u#	2.0Ø	2.5	25	100 #	4.0M§Δ				TO3	CØ
48	2N4915	500m	88 Ø	§J	5.0	1.0	80	5.0	80	10u#	2.0Ø	2.5	25	100 #	4.0M§Δ				TO3	CØ
49	2N5067	500m	88 Ø	§J	5.0	1.0	40	5.0	40	1.0m#	2.0Ø	1.0	20	80 #	4.0M§Δ				TO3	CØ
50	2N5068	500m	88 Ø	§J	5.0	1.0	60	5.0	60	1.0m#	2.0Ø	1.0	20	80 #	4.0M§Δ				TO3	CØ
51	2N5069	500m	88 Ø	§J	5.0	1.0	80	5.0	80	1.0m#	2.0Ø	1.0	20	80 #	4.0M§Δ				TO3	CØ
52	2N5218†	500m$	50 Ø	§C	10	1.0	220	8.0	200	500nØ	5.0Ø	5.0	15	120 #	40M§Δ		600n		TO61	AØ
53	2N5264†	500m	87 Ø	§J	10	2.0	400	5.0	180	1.0m#	2.5Ø	1.0	30	300 #	50M§Δ	178m	1.0u		TO3	CØ
54	2N5313†	500m$	50 Ø	§J	10	2.5	80	6.0	80	10u#	5.0Ø	10	30	90 #	30M§Δ		500n		TO61	AØ
55	2N5315†	500m$	50 Ø	§J	10	2.5	100	6.0	100	10u#	5.0Ø	10	30	90 #	30M§Δ		500n		TO61	AØ
56	2N5317†	500m$	50 Ø	§J	10	2.0	80	6.0	80	10u#	5.0Ø	5.0	30	90 #	30M§Δ		400n		TO61	A
57	2N5319†	500m$	50 Ø	§J	10	2.0	100	6.0	100	10u#	5.0Ø	5.0	30	90 #	30M§Δ		400n		TO61	A
58	2N5540†	500m$	50 Ø	§J	10	2.0	325	8.0	300	500nØ	5.0Ø	5.0	20	60 #	20M§Δ		1.5u		TO61	AØ
59	2N5542†	500m$	50 Ø	§J	10	2.0	175	8.0	130	500nØ	5.0Ø	5.0	30	90 #	20M§Δ		500n		TO61	AØ
60▼	2N5691	500m	88 Ø	§S	8.0		50 †	4.0†	30	1.5mΔ	10Ø	100m	10						X92	R
61▼	2N5731†	500m	75 Ø#	§J	20	4.0	100	5.0	80	1.0m§	2.0Ø	5.0	30	300 #	30M§		300n	PE	TO61	A
62▼	2N5732†	500m	75 Ø#	§J	20	4.0	100	5.0	80	1.0m§	2.0Ø	5.0	30	300 #	30M§		300n	PE	TO3	CØ
63#	2SC240	500mØ	75 Ø	§J	5.0		100	5.0	65	5.0m	10Ø	1.0	15	35 Ø	35Mt	500m		ME	TO3	
64#	2SC241	500mØ	75 Ø	§J	5.0		60	5.0	40	10m	10Ø	1.0	15	35 Ø	35Mt	500m		ME	TO3	
65#	2SC242	500mØ	75 Ø	§J	5.0		100	5.0	65	10m	10Ø	1.0	15	35 Ø	35Mt	500m		ME	TO3	
66#	2SC243	500mØ	75 Ø	§J	5.0		140	5.0	80	10m	10Ø	1.0	15	35 Ø	35Mt	500m		ME	TO3	
67#	2SD12	500m	60 Ø	§J	2.5		75	4.0	40	10m	4.0Ø	1.0	25	75	20MΔ	800m		ME	TO3	Ø
68	3TE610	500m	87 Ø	§J	8.0	3.0	80	4.0	60	1.0mΔ	5.0Ø	1.0	10	175	330M§	333m		PE	MT62a	FØ
69#	180T2A	500m	85 Ø	§J	6.0	3.0	60	10	60	10m§	4.0Ø	2.0	15	45 #	10M§Δ			☑	TO3	CØ
70#	180T2B	500m	85 Ø	§J	6.0	3.0	60	10	60	10m§	4.0Ø	2.0	30	90 #	10M§Δ			☑	TO3	
71#	180T2C	500m	85 Ø	§J	6.0	3.0	60	10	60	10m§	4.0Ø	2.0	75	180 #	10M§Δ			☑	TO3	
72#	181T2A	500m	85 Ø	§J	6.0	3.0	100	10	90	1.0m§	4.0Ø	2.0	15	45 #	10M§Δ			☑	TO3	
73#	181T2B	500m	85 Ø	§J	6.0	3.0	100	10	90	1.0m§	4.0Ø	2.0	30	90 #	10M§Δ			☑	TO3	
74#	181T2C	500m	85 Ø	§J	6.0	3.0	100	10	90	1.0m§	4.0Ø	2.0	75	180 #	10M§Δ			☑	TO3	
75#	182T2A	500m	85 Ø	§J	6.0	3.0	200	10	140	1.0m§Ø	4.0Ø	2.0	15	45 #	10M§Δ			☑	TO3	
76#	182T2B	500m	85 Ø	§J	6.0	3.0	200	10	140	1.0m§Ø	4.0Ø	2.0	30	90 #	10M§Δ			☑	TO3	
77#	182T2C	500m	85 Ø	§J	6.0	3.0	200	10	140	1.0m§Ø	4.0Ø	2.0	75	180 #	10M§Δ			☑	TO3	
78#	183T2A	500m	85 Ø	§J	6.0	3.0	300	10	180	1.0m§Ø	4.0Ø	2.0	15	45	10M§Δ			☑	TO3	CØ
79#	183T2B	500m	85 Ø	§J	6.0	3.0	300	10	180	1.0m§Ø	4.0Ø	2.0	30	90	10M§Δ			☑	TO3	CØ
80#	183T2C	500m	85 Ø	§J	6.0	3.0	300	10	180	1.0m§Ø	4.0Ø	2.0	75	180	10M§Δ			☑	TO3	CØ
81#	184T2A	500m	85 Ø	§J	6.0	3.0	400	10	200	1.0m§Ø	4.0Ø	2.0	15	45	10M§Δ			☑	TO3	CØ
82#	184T2B	500m	85 Ø	§J	6.0	3.0	400	10	200	1.0m§Ø	4.0Ø	2.0	30	90	10M§Δ			☑	TO3	CØ
83#	185T2A	500m	85 Ø	§J	6.0	3.0	500	10	250	1.0m§Ø	4.0Ø	2.0	15	45	10M§Δ			☑	TO3	CØ
84#	185T2B	500m	85 Ø	§J	6.0	3.0	500	10	250	1.0mØ§	4.0Ø	2.0	30	90	10M§Δ			☑	TO3	CØ
85#	185T2C	500m	85 Ø	§J	6.0	3.0	500	10	250	1.0mØ§	4.0Ø	2.0	75	180	10M§Δ			☑	TO3	CØ
86	1716-0602	500mØ	50 $	§J	10 #	2.0	60	7.0	60 ☑	200u	2.0Ø	2.0	20 #		40M§Δ		300nØ☑	EMΔ	TO61	
87	1716-0605	500m$	50 $	§J	10 #	2.0	60	7.0	60 ☑	200u	2.0Ø	5.0	20 #		40M§Δ		400nØ☑	EMΔ	TO61	
88	1716-0802	500m$	50 $	§J	10 #	2.0	80	7.0	80 ☑	200u	2.0Ø	2.0	20 #		40M§Δ		300nØ☑	EMΔ	TO61	
89	1716-0805	500m$	50 $	§J	10 #	2.0	80	7.0	80 ☑	200u	2.0Ø	5.0	20 #		40M§Δ		400nØ☑	EMΔ	TO61	
90	1716-1002	500m$	50 $	§J	10 #	2.0	100	7.0	100 ☑	200u	2.0Ø	2.0	20 #		40M§Δ		300nØ☑	EMΔ	TO61	
91	1716-1005	500m$	50 $	§J	10 #	2.0	100	7.0	100 ☑	200u	2.0Ø	5.0	20 #		40M§Δ		400nØ☑	EMΔ	TO61	
92	1716-1202	500m$	50 $	§J	10 #	2.0	120	7.0	120 ☑	200u	2.0Ø	2.0	20 #		40M§Δ		300nØ☑	EMΔ	TO61	
93	1716-1205	500m$	50 $	§J	10 #	2.0	120	7.0	120 ☑	200u	2.0Ø	5.0	20 #		40M§Δ		400nØ☑	EMΔ	TO61	
94	1716-1402	500m$	50 $	§J	10 #	2.0	140	7.0	140 ☑	200u	2.0Ø	2.0	20 #		40M§Δ		300nØ☑	EMΔ	TO61	
95	1716-1405	500m$	50 $	§J	10 #	2.0	140	7.0	140 ☑	200u	2.0Ø	5.0	20 #		40M§Δ		400nØ☑	EMΔ	TO61	
96	1716-1602	500m$	50 $	§J	10 #	2.0	160	7.0	160 ☑	200u	2.0Ø	2.0	20 #		40M§Δ		300nØ☑	EMΔ	TO61	
97	1716-1605	500m$	50 $	§J	10 #	2.0	160	7.0	160 ☑	200u	2.0Ø	5.0	20 #		40M§Δ		400nØ☑	EMΔ	TO61	
98	1716-1802	500m$	50 $	§J	10 #	2.0	180	7.0	180 ☑	200u	2.0Ø	2.0	20 #		40M§Δ		300nØ☑	EMΔ	TO61	
99	B5000	500m	25 Ø$	$J	3.0	1.0			35	1.5mtØ	14Ø	500m	30	250 *					X53	
100#	BLY17A	500m	75	§J	10	2.0	100	5.0	100 §	10mØ		10 Δ	5.0		70k§			D	TO36	CØ
101#	BLY17C	500m			10	2.0	100	5.0							70M§			PD	TO36	A
102#	BUY18†	500m	62 Ø	§J			300	5.0	150	10u§	5.0Ø	1.0	30 #		50M§Δ		1.0uØ	DPE	TO3	CØ
103	MHT7011	500m$	50 Ø	§J	10	2.0	60	5.0	40	1.0uØ	5.0Ø	5.0	20	60 #	15M§Δ			PL	TO61	Ø
104	MHT7012	500m$	50 Ø	§J	10	2.0	80	5.0	60	1.0uØ	5.0Ø	5.0	20	60 #	15M§Δ			PL	TO61	Ø
105	MHT7013	500m$	50 Ø	§J	10	2.0	100	5.0	80	1.0uØ	5.0Ø	5.0	20	60 #	15M§Δ			PL	TO61	Ø
106	MHT7014	500m$	50 Ø	§J	10	2.0	60	5.0	40	1.0uØ	5.0Ø	5.0	40	120 #	15M§Δ			PL	TO61	Ø
107	MHT7015	500m$	50 Ø	§J	10	2.0	80	5.0	60	1.0uØ	5.0Ø	5.0	40	120 #	15M§Δ			PL	TO61	Ø
108	MHT7016	500m$	50 Ø	§J	10	2.0	100	5.0	80	1.0uØ	5.0Ø	5.0	40	120 #	15M§Δ			PL	TO61	Ø
109	MHT7017	500m$	50 Ø	§J	10	2.0	60	5.0	40	1.0uØ	5.0Ø	5.0	100 #		15M§Δ			PL	TO61	Ø
110	MHT7018	500m$	50 Ø	§J	10	2.0	80	5.0	60	1.0uØ	5.0Ø	5.0	100 #		15M§Δ			PL	TO61	Ø

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUCTURE	DWG. No.	L C E O A D D E
1	MHT7019	500m$	50 Ø	§J	10	2.0	100	5.0	80	1.0uØ	5.0Ø	5.0	100 #		15M§△			PL	TO61	Ø
2	MHT7801	500m	50 Ø	§	10	5.0	225	7.0	200	1.0uØ	5.0	5.0	20	60	30M§△	100m		PL	TO61	
3	MHT7802	500m	50 Ø	§	10	5.0	250	7.0	225	1.0uØ	5.0	5.0	20	60	30M§△	100m		PL	TO61	
4	MHT7803	500m	50 Ø	§	10	5.0	275	7.0	250	1.0uØ	5.0	5.0	20	60	30M§△	100m		PL	TO61	
5	MHT7804	500m	50 Ø	§	10	5.0	325	7.0	300	1.0uØ	5.0	5.0	20	60	30M§△	100m		PL	TO61	
6	MHT7805	500m	50 Ø	§	10	5.0	350	7.0	325	1.0uØ	5.0	5.0	20	60	30M§△	100m		PL	TO61	
7	MHT7806	500m$	50 Ø	§J	10		150	5.0	150	10uØ	5.0Ø	5.0	10 #					PL	MT50a	A
8	MHT7807	500m$	50 Ø	§J	10		200	5.0	200	10uØ	5.0Ø	5.0	15 #					PL	MT50a	A
9	MHT7808	500m$	50 Ø	§J	10		250	5.0	250	10uØ	5.0Ø	5.0	15 #					PL	MT50a	A
10	MHT7809	500m$	50 Ø	§J	10		300	5.0	300	10uØ	5.0Ø	5.0	15 #					PL	MT50a	A
11	MJ480	500m	87 Ø	§J			40	5.0	40			1.0	30	200	4.0M§△	400m			TO3	Ø
12	MJ481	500m	87 Ø	§J			60	5.0	60			1.0	30	200	4.0M§△	400m			TO3	Ø
13	SDT3201†	500m	3.0	§J	20	5.0	40	6.0	40	10u#	5.0Ø	10	30	90 #	30M§△		500n	PE	TO61	A
14	SDT3202†	500m	3.0	§J	20	5.0	60	6.0	60	10u#	5.0Ø	10	30	90 #	30M§△		500n	PE	TO61	A
15	SDT3203†	500m	3.0	§J	20	5.0	80	6.0	80	10u#	5.0Ø	10	30	90 #	30M§△		500n	PE	TO61	A
16	SDT3204†	500m	3.0	§J	20	5.0	100	6.0	100	10u#	5.0Ø	10	30	90 #	30M§△		500n	PE	TO61	A
17	SDT3205†	500m	3.0	§J	10	4.0	40	6.0	40	10u#	5.0Ø	5.0	30	90 #	30M§△		300n	PE	TO61	A
18	SDT3206†	500m	3.0	§J	10	4.0	60	6.0	60	10u#	5.0Ø	5.0	30	90 #	30M§△		300n	PE	TO61	A
19	SDT3207†	500m	3.0	§J	10	4.0	80	6.0	80	10u#	5.0Ø	5.0	30	90 #	30M§△		300n	PE	TO61	A
20	SDT3208†	500m	3.0	§J	10	4.0	100	6.0	100	10u#	5.0Ø	5.0	30	90 #	30M§△		300n	PE	TO61	A
21	SDT3209†	500m	3.0	§J	10	4.0	120	6.0	120	10u#	5.0Ø	5.0	30	90 #	30M§△		300n	PE	TO61	A
22	ST86020	500m	50 Ø	§J	5.0		125	10	80	100u	10	3.0	20	120	10M	400m	2.0u	P	TO61	
23	ST86021	500m	50 Ø	§J	5.0		145	10	100	100u	10	3.0	20	120	10M	400m	2.0u	P	TO61	
24	ST86022	500m	50 Ø	§J	5.0		170	10	120	100u	10	3.0	20	120	10M	400m	2.0u	P	TO61	
25▼	MJE205	522m	65 Ø	§J	5.0	2.5	50	4.0	50	100u	2.0Ø	2.0	25	100					X58a	B
26	2N3551†	526m$	40 Ø	§J	12	5.0	115	7.0	60	10m#Ø	2.0Ø	10	20	90 #	40M§△	100m	300nØ	ME	X15	
27	2N3552†	526m$	40 Ø	§J	12	5.0	140	7.0	80	10m#Ø	2.0Ø	10	20	90 #	40M§△	100m	300nØ	ME	X15	
28#	BUY20	568m	85 Ø	§J	7.0	3.0	200	8.0	120	100uØ	5.0Ø	3.0	20	300 #	15M§△		4.0n#Ø	DM△	TO3	CØ
29#	BUY21	568m	85 Ø	§J	7.0	3.0	300	8.0	180	100uØ	5.0Ø	3.0	20	300 #	15M§△		4.0n#Ø	DM△	TO3	CØ
30#	BUY22	568m	85 Ø	§J	7.0	3.0	450	8.0	200	100uØ	5.0Ø	3.0	20	300 #	15M§△		4.0n#Ø	DM△	TO3	CØ
31	2N5239	570m	100	§J	5.0	2.0	300	6.0	225 Ø	4.0m#	10Ø	2.0	20	80	5.0M§△	1.1			TO3	CØ
32	2N5240	570m	100	§J	5.0	2.0	375	6.0	300 Ø	2.0m#	10Ø	2.0	20	80	5.0M§△	1.1			TO3	CØ
33▼	2N5708	570m	100 Ø	§J	6.0		70 †	4.0†	50	5.0m§†	10Ø	100m	5.0	50	50M§△				TO128	V
34	2N4347	577m	100 Ø	§J	5.0	3.0	140 †	7.0†	120	200m△Ø	4.0Ø	2.0	15	60 #					TO3	CØ
35▼#	2SD55A	620m	200	§J	20		130	12	110	1.0mØ	5.0Ø	10	12	48	1.0M†			D	TO3	C
36	TIP33†	625m	3.5	§J	10	3.0	40	5.0	40	700u△	4.0	1.0	25	125 #	3.0k§△		450nØ	D	X86	BØ
37	TIP33A†	625m	3.5	§J	10	3.0	60	5.0	60	700u△	4.0	1.0	25	125 #	3.0k§△		450nØ	D	X86	BØ
38	2N5329	645m$	65 Ø	§J	20	5.0	150	8.0	90		2.0Ø	10	40	120	80M§△	90m	350nØ		TO61	A
39	156-043	660m	115 Ø	§J	15	7.0	50	6.0	40		10Ø	3.0	18	55 #				DA	TO3	CØ
40	156-044	660m	115 Ø	§J	15	7.0	50	7.0	40		4.0Ø	4.0	20	70 #				DA	TO3	CØ
41	156-064	660m	115 Ø	§J	15	7.0	70	7.0	60		4.0Ø	4.0	20	70 #				DA	TO3	CØ
42	156-083	660m	115 Ø	§J	15	7.0	90	6.0	80		10Ø	3.0	18	55 #				DA	TO3	CØ
43	156-084	660m	115 Ø	§J	15	7.0	80	7.0	80		4.0Ø	4.0	20	70 #				DA	TO3	CØ
44	156-104	660m	115 Ø	§J	15	7.0	110	7.0	100		4.0Ø	4.0	20	70 #				DA	TO3	CØ
45	156-123	660m	115 Ø	§J	15	7.0	130	6.0	120		10Ø	3.0	18	55 #				DA	TO3	CØ
46	156-124	660m	115 Ø	§J	15	7.0	130	7.0	120		4.0Ø	4.0	20	70 #				DA	TO3	CØ
47	156-143	660m	115 Ø	§J	15	7.0	150	6.0	140		10Ø	3.0	18	55 #				DA	TO3	CØ
48	156-144	660m	115 Ø	§J	15	7.0	150	7.0	140		4.0Ø	4.0	20	70 #				DA	TO3	CØ
49	156-164	660m	115 Ø	§J	15	7.0	170	7.0	160		4.0Ø	4.0	20	70 #				DA	TO3	CØ
50	2N1722	666m$	50 Ø	§J	7.5	5.0	175	10	80	10m	15Ø	2.0	20	90 #	10M§	500m		ME	TO53	AØ
51	JAN2N1722	666m△	3.0	§A	5.0		175	10	80	5.0m	15Ø	2.0	30	90 #	10M§△				TO53	AØ
52	2N1722A	666m$	50 Ø	§J	7.5	1.0	180	10	120	10m	15Ø	5.0	20 #		10M§	300m		ME	TO53	AØ
53	2N1723	666m$	50 Ø	§J	7.5	1.0	120	10	80	10m	15Ø	2.0	50	150 #	10M§	500m		ME	TO53	AØ
54	2N1724	666m$	50 Ø	§J	7.5	5.0	175	10	80	10m	15Ø	2.0	20	90 #	10M§	500m		ME	TO61	AØ
55	JAN2N1724	666m△	3.0	§A	5.0		175	10	80	5.0m	15Ø	2.0	30	90 #	10M§△				TO61	AØ
56	2N1724A	666m	3.0	§J	5.0	1.0	180	10	120	100uØ	15Ø	2.0	30	90 #	10M§				TO61	AØ
57	2N1725	666m	3.0	§J	5.0	5.0 Ø	120	10	80	100uØ	15Ø	2.0	50	150 #	10M§				TO61	AØ
58	2N3055	666m	115 Ø	§C	15	7.0	100	7.0	70 §(	5.0m#	4.0Ø	4.0	20	70	20k△	250m			TO3	CØ
59	JAN2N3055†	666m	6.0	§J	15	7.0	100	7.0	70	1.0m#	4.0Ø	4.0	20	60 #	800 §△		6.0uØØ		TO3	CØ
60	2N3232	666m	117 Ø	§C	7.5	3.0	80	6.0	60	1.0m#	10Ø	3.0	18	55	1.0M§△				MD21	Ø
61	2N3233	666m	117 Ø	§C	7.5	3.0	110	6.0	100	1.0m#	10Ø	3.0	18	55	1.0M§△				MD21	Ø
62	2N3234	666m	117 Ø	§C	7.5	3.0	160	6.0	160	1.0m#	10Ø	3.0	18	55	1.0M§△				MD21	Ø
63	2N3235	666m	117 Ø	§C	15	7.0	65	7.0	55	5.0m#	4.0Ø	4.0	20	70	1.0M§△				MD21	Ø
64	2N3263†	666m§	84 Ø	§J	25	10	150	7.0	90 Ø	20m#	2.0Ø	15	20	55 #	20M§△		500n		X21	DØ
65	2N3264†	666m§	84 Ø	§J	25	10	120	7.0	60 Ø	20m#	3.0Ø	15	25	80 #	20M§△		500n		X21	DØ
66	JAN2N3442	666m	4.0	§J	10	7.0	160	7.0	140	1.0mØ	4.0Ø	3.0	20	70 #					TO3	CØ
67	2N3445†	666m	115 Ø	§J	7.5	4.0	80	6.0	60	100u#	5.0Ø	3.0	20	60	10M§△	500m	350nØØ	EA	TO3	CØ
68	2N3446†	666m	115 Ø	§J	7.5	4.0	100	10	80	100u#	5.0Ø	3.0	20	60	10M§△	500m	350nØØ	EA	TO3	CØ
69	2N3447†	666m	115 Ø	§J	7.5	4.0	80	6.0	60	100u#	5.0Ø	5.0	40	120	10M§△	300m	350nØØ	EA	TO3	CØ
70	2N3448†	666m	115 Ø	§J	7.5	4.0	100	10	80	100u#	5.0Ø	5.0	40	120	10M§△	300m	350nØØ	EA	TO3	CØ
71	2N3487†	666m	115 Ø	§C	7.5	4.0	80	10	60	100u	5.0Ø	3.0	20	60	10M§△	300m	350nØ		TO61	AØ
72	2N3488†	666m	115 Ø	§C	7.5	4.0	100	10	80	100u	5.0Ø	3.0	20	60	10M§△	300m	350nØ		TO61	AØ
73	2N3489†	666m	115 Ø	§C	7.5	4.0	120	10	100	100u	5.0Ø	3.0	15	45	10M§△	300m	350nØ		TO61	AØ
74	2N3490†	666m	115 Ø	§C	7.5	4.0	80	10	60	100u	5.0Ø	5.0	40	120	10M§△	300m	350nØ		TO61	AØ
75	2N3491†	666m	115 Ø	§C	7.5	4.0	100	10	80	100u	5.0Ø	5.0	40	120	10M§△	300m	350nØ		TO61	AØ
76	2N3492†	666m	115 Ø	§C	7.5	4.0	120	10	100	100u	5.0Ø	3.0	30	90	10M§△	300m	350nØ		TO61	AØ
77	2N3788	666m	100 Ø	§J	2.0	1.0	400	5.0	325	5.0mØ#	5.0Ø	500m	20	180	50k△	2.0			TO3	CØ
78	2N3864†	666m	117 Ø	§C	7.5	3.0	110	7.0	90	1.0m#	2.0Ø	3.0	30	90	500k§△	330m	8.0uØ		TO3	CØ
79	2N3865†	666m	117 Ø	§C	7.5	3.0	160	7.0	150	1.0m#	2.0Ø	3.0	30	90	500k§△	330m	8.0uØ		TO3	CØ
80	2N5006	666m#	100 Ø	§J	10	3.0	100	6.0	80	1.0m#	5.0Ø	5.0	30	90 #	30M§△				MT16a	A
81	2N5008	666m#	100 Ø	§J	10	3.0	100	6.0	80	1.0m#	5.0Ø	5.0	70	200 #	40M§△				MT16a	A
82	2N5034	666m	83 Ø	§J	6.0	6.0	55	5.0	45	200mA	4.0Ø	4.0	20	80		420m			MS9	CØ
83	2N5035	666m	83 Ø	§J	6.0	6.0	55	5.0	45	200mA	4.0Ø	4.0	20	80		380m			MS9a	CØ
84	2N5036	666m	83 Ø	§J	8.0	6.0	70	5.0	60	200mA	4.0Ø	5.0	20	80		420m			MS9	CØ
85	2N5037	666m	83 Ø	§J	8.0	6.0	70	5.0	60	200mA	4.0Ø	5.0	20	80		380m			MS9a	CØ
86	2N5048†	666m	100 Ø	§J	10	2.0	120	14	100	1.0m#	4.0Ø	10	15	60	10M§Ø	200m	600n		TO61	AØ
87	2N5288	666m#	100 Ø	§J	10	3.0	120	6.0	100	1.0m#	5.0Ø	5.0	30	90 #	30M§△				MT16a	A
88	2N5289	666m#	100 Ø	§J	10	3.0	120	6.0	100	1.0m#	5.0Ø	5.0	70	200 #	40M§△				MT16a	A
89#	2S024	666m	100 Ø	§J	7.5	2.0	100	10	32	1.0m	15Ø	2.0	20	30 Ø	12M§	500m		ME	MS3	
90#	2S025	666m	100 Ø	§J	7.5	2.0	150	10	60	1.0m	15Ø	2.0	20	30 Ø	12M§	500m		ME	MS3	
91#	2S026	666m	100 Ø	§J	7.5	2.0	200	10	100	1.0m	15Ø	2.0	20	30 Ø	12M§	500m		ME	MS3	
92#	2SC408†	666mØ	100 Ø	§J	10	3.0	150	4.0	100	50m	5.0Ø	5.0	20	40 Ø	400k	200m	1.0u		TO3	
93#	2SC409†	666mØ	100 Ø	§J	10	3.0	200	4.0	140	20m	5.0Ø	5.0	10	30	400k	200m	1.0u		TO3	
94#	2SC410†	666mØ	100 Ø	§J	10	3.0	200	4.0	140	20m	5.0Ø	5.0	20	40 Ø	400k	200m	1.0u		TO3	
95#	2SC411†	666mØ	100 Ø	§J	10	3.0	300	4.0	200	5.0m	5.0Ø	5.0	10	30	400k	200m	1.0u		TO3	
96#	2SC412†	666mØ	100 Ø	§J	10	3.0	300	4.0	200	5.0m	5.0Ø	5.0	20	40 Ø	400k	200m	1.0u		TO3	
97#	2SC586	666m	50	§J	5.0	6.0 Ø	150	6.0	150 Ø	15m						320m		EM	TO3	Ø
98#	2SC647	666m§	50 Ø	§J	5.0		80	5.0	80	10m	4.0Ø	4.0	20	30 Ø	300k	320m		DM	TO3	CØ
99#	2SC687	666m	50 Ø	§J	5.0	6.0 Ø	150	6.0	150 Ø	15m	4.0Ø	5.0	14	33 Ø		320m	1.0u#	ME	TO3	Ø
100#	2SC901	666m	50 Ø	§J	5.0	6.0 Ø	200	6.0	200 Ø	15mØ	4.0Ø	5.0	14	25 Ø			1.0u#	DM	TO3	
101#	2SC901A	666m	50 Ø	§J	5.0	6.0 Ø	250	6.0	250 Ø	15mØ	4.0Ø	5.0	14	25 Ø			1.0u#	DM	TO3	
102#	2SD13	666m	100 Ø	§J	10		35	4.0	20	45m	10Ø	2.5	30	90	20kA	3.0		ME	TO36	Ø
103#	2SD14	666m	100 Ø	§J	10		75	4.0	40	45m	4.0Ø	10	15	45	20kA	3.0		ME	TO36	Ø
104#	2SD15†	666mØ	80	§J	6.0	3.0	60	10	45	2.0m	4.0Ø	1.5	10	80	2.0M†△	1.0	1.3u	D	TO3	
105#	2SD16†	666mØ	80	§J	6.0	3.0	100	10	55	1.0m	4.0Ø	1.5	10	80	2.0M†△	1.0	1.3u	D	TO3	
106#	2SD17†	666mØ	80	§J	6.0	3.0	150	10	70	500u	4.0Ø	1.5	10	80	2.0M†△	1.0	1.3u	D	TO3	
107#	2SD18†	666mØ	80 Ø	§J	6.0	3.0	200	10	85	50uØ	4.0Ø	1.5	10	80	2.0M†△	1.0	1.3u	D	TO3	
108#	2SD53	666m	100 Ø	§J	10	4.0	90	12	50	200u	4.0Ø	5.0	12	48	1.2M†			D	TO3	
109#	2SD110†	666m	100 Ø	§J	10	3.0	130	10	110	5.0mØ	5.0Ø	1.0	20	40 Ø	2.0M§	300m		D	TO3	CØ
110#	2SD111†	666m	100 Ø	§J	10	3.0	100	10	80	5.0mØ	5.0Ø	1.0	20	40 Ø	2.0M§	300m		D	TO3	CØ

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1#	2SD151	666m	120 Ø	$J	15	3.0	100	6.0	60	1.0mØ	10Ø	10	20	100 #		100m		EM	TO3	
2#	2SD163†	666m	100 Ø	$J	10	4.0	60	10	40	50uØ	4.0	5.0	15	30 Ø	800kt△	300m	1.4u	D	TO3	CØ
3#	2SD164†	666m	100 Ø	$J	10	4.0	100	10	55	50uØ	4.0	5.0	15	30 Ø	800kt△	300m	1.4u	D	TO3	CØ
4#	2SD165†	666m	100 Ø	$J	10	4.0	150	10	70	50uØ	4.0	5.0	15	30 Ø	800kt△	300m	1.4u	D	TO3	CØ
5#	2SD166†	666m	100 Ø	$J	10	4.0	200	10	85	50uØ	4.0	5.0	15	30 Ø	800kt△	300m	1.4u	D	TO3	CØ
6#	2SD172	666m	100 Ø	§J	10		60	6.0	40	20uØ	4.0Ø	5.0	10	60 *	1.2M§	500m		D	TO3	CØ
7#	2SD173	666m	100 Ø	§J	10		100	6.0	60	20uØ	4.0Ø	5.0	10	60 *	1.2M§	500m		D	TO3	CØ
8#	2SD176	666m	100 Ø	§J	10		90	12	50	20uØ	4.0Ø	5.0	10	50	1.2M†			D	TO3	
9#	2SD177	666m	100 Ø	§J	10		120	12	70	20uØ	4.0Ø	5.0	10	50	1.2M†			D	TO3	
10#	2SD189	666m§	50 Ø	$J	5.0		80	5.0	80	10mØ	4.0Ø	4.0	20	160	40M§	400m		DM	TO3	CØ
11#	2SD189A	666m§	50 Ø	$J	5.0		100	5.0	100	10mØ	4.0Ø	4.0	20	160	40M§	400m		DM	TO3	CØ
12	40251	666m	117 Ø	§J	15	7.0	50	5.0	40	5.0mØ	4.0Ø	8.0 Ø	15	60	500k§	190m		D	TO3	CØ
13	40325	666m	117 Ø	§J	15	7.0	35	5.0	35	5.0mØ	4.0Ø	8.0	12	60				D	TO3	CØ
14	40363	666m	115 Ø	§J	17	7.0		4.0	70	500u	4.0Ø	4.0	20	70	700k§			D	TO3	CØ
15	40513	666m	83 Ø	§J	6.0	6.0		5.0		2.5m*	4.0Ø	2.5	20	70 #	800k§△			D	MS9a	CØ
16	40514	666m	83 Ø	§J	6.0	6.0		5.0		2.5m*	4.0Ø	2.5	20	70 #	800k§△			D	MS9	CØ
17	40542	666m	83 Ø	§J	6.0			5.0	50 §	1.0m*	4.0Ø	2.5 Ø	20	70 #	800k§△	400m		†	MS9	CØ
18	40543	666m	83 Ø	§J	8.0			5.0	50 §	1.0m*	4.0Ø	2.5 Ø	20	70 #	800k§△	330m		†	MS9	CØ
19	40633	666m	2.0	$A	8.0	6.0		5.0		500n*	4.0Ø	4.0	20	70				H	MS9	T
20	40636	666m	115 Ø	§A	15	7.0		7.0		500n*	4.0Ø	4.0	20	70				H	TO3	CØ
21▼	40675*	666m#	100 Ø	§J	10			3.5	35	30m§								PE	L68	
22	B148000†	666m	100 Ø	§S	20	4.0		7.0	80	10u§	5.0Ø	2.0	40	160 #	60M§△	100m	200n		TO61	AØ
23	B148001†	666m	100 Ø	§S	20	4.0		7.0	100	10u§	5.0Ø	2.0	40	160 #	60M§△	100m	200n		TO61	AØ
24	B148002†	666m	100 Ø	§S	15	4.0		7.0	80	10u§	5.0Ø	2.0	40	160 #	60M§△	100m	200n		TO61	AØ
25	B148003†	666m	100 Ø	§S	15	4.0		7.0	100	10u§	5.0Ø	2.0	40	160 #	60M§△	100m	200n		TO61	AØ
26	B148004†	666m	100 Ø	§S	20	4.0		7.0	60	10u§	5.0Ø	2.0	40	160 #	60M§△	100m	200n		TO61	AØ
27	B170000	666m	60 Ø	§J	6.0	3.0	50	5.0	40	30mt#	4.0Ø	500m	20	120 *	15k	400m		DM	TO3	CØ
28	B170001	666m	90 Ø	§J	10	5.0	50	5.0	40	30mt#	4.0Ø	500m	20	120 *	15k	270m		DM	TO3	CØ
29	B170002	666m	120 Ø	§J	15	7.0	50	5.0	40	30mt#	4.0Ø	500m	20	120 *	15k	300m		DM	TO3	CØ
30	B170003	666m	60 Ø	§J	6.0	3.0	80	5.0	70	30mt#	4.0Ø	500m	20	120 *	15k	400m		DM	TO3	CØ
31	B170004	666m	90 Ø	§J	10	5.0	80	5.0	70	30mt#	4.0Ø	500m	20	120 *	15k	270m		DM	TO3	CØ
32	B170005	666m	120 Ø	§J	15	7.0	80	5.0	70	30mt#	4.0Ø	500m	20	120 *	15k	300m		DM	TO3	CØ
33	B170006	666m	60 Ø	§J	6.0	3.0	100	5.0	100	30mt#	4.0Ø	500m	20	120 *	15k	400m		DM	TO3	CØ
34	B170007	666m	90 Ø	§J	10	5.0	100	5.0	100	30mt#	4.0Ø	500m	20	120 *	15k	270m		DM	TO3	CØ
35	B170008	666m	120 Ø	§J	15	7.0	100	5.0	100	30mt#	4.0Ø	500m	20	120 *	15k	300m		DM	TO3	CØ
36	B170009	666m	60 Ø	§J	6.0	3.0	50	2.0	40	30mt#	4.0Ø	1.0	30			400m		DM	TO3	CØ
37	B170010	666m	90 Ø	§J	10	5.0	50	2.0	40	30mt#	4.0Ø	3.0	20			270m		DM	TO3	CØ
38	B170011	666m	120 Ø	§J	15	7.0	50	2.0	40	30mt#	4.0Ø	5.0	12			300m		DM	TO3	CØ
39	B170012	666m	60 Ø	§J	6.0	3.0	80	2.0	70	30mt#	4.0Ø	1.0	30			400m		DM	TO3	CØ
40	B170013	666m	90 Ø	§J	10	5.0	80	2.0	70	30mt#	4.0Ø	3.0	20			270m		DM	TO3	CØ
41	B170014	666m	120 Ø	§J	15	7.0	80	2.0	70	30mt#	4.0Ø	5.0	12			300m		DM	TO3	CØ
42	B170015	666m	60 Ø	§J	6.0	3.0	100	2.0	100	30mt#	4.0Ø	1.0	30			400m		DM	TO3	CØ
43	B170016	666m	90 Ø	§J	10	5.0	100	2.0	100	30mt#	4.0Ø	3.0	20			270m		DM	TO3	CØ
44	B170017	666m	120 Ø	§J	15	7.0	100	2.0	100	30mt#	4.0Ø	5.0	12			300m		DM	TO3	CØ
45	B170018†	666m	60 Ø	§J	6.0	3.0	50	5.0	40	30mt#	4.0Ø	1.0	30			400m	4.0u	DM	TO3	CØ
46	B170019†	666m	90 Ø	§J	10	5.0	50	5.0	40	30mt#	4.0Ø	3.0	20			270m	6.0u	DM	TO3	CØ
47	B170020†	666m	120 Ø	§J	15	7.0	50	5.0	40	30mt#	4.0Ø	5.0	12			300m	8.0u	DM	TO3	CØ
48	B170021†	666m	60 Ø	§J	6.0	3.0	80	5.0	70	30mt#	4.0Ø	1.0	30			400m	4.0u	DM	TO3	CØ
49	B170022†	666m	90 Ø	§J	10	5.0	80	5.0	70	30mt#	4.0Ø	3.0	20			270m	6.0u	DM	TO3	CØ
50	B170023†	666m	120 Ø	§J	15	7.0	80	5.0	70	30mt#	4.0Ø	5.0	12			300m	8.0u	DM	TO3	CØ
51	B170024†	666m	60 Ø	§J	6.0	3.0	100	5.0	100	30mt#	4.0Ø	1.0	30			400m	4.0u	DM	TO3	CØ
52	B170025†	666m	90 Ø	§J	10	5.0	100	5.0	100	30mt#	4.0Ø	3.0	20			270m	6.0u	DM	TO3	CØ
53	B170026†	666m	120 Ø	§J	15	7.0	100	5.0	100	30mt#	4.0Ø	5.0	12			300m	8.0u	DM	TO3	CØ
54	B176000	666m§	50 Ø	§J	5.0	2.5	250	5.0	250 #	2.0uØ	5.0Ø	100m	25						TO3	CØ
55	B176001	666m§	50 Ø	§J	5.0	2.5	250	5.0	250 #	2.0uØ	5.0Ø	500m	20						TO3	CØ
56	B176002	666m§	50 Ø	§J	5.0	2.5	250	5.0	250 #	2.0uØ	5.0Ø	1.5	10						TO3	CØ
57	B176003	666m§	50 Ø	§J	5.0	2.5	250	5.0	250 #	2.0uØ	5.0Ø	2.5	10						TO3	CØ
58	B176004	666m§	50 Ø	§J	5.0	2.5	400	5.0	400 #	2.0uØ	5.0Ø	100m	25						TO3	CØ
59	B176005	666m§	50 Ø	§J	5.0	2.5	400	5.0	400 #	2.0uØ	5.0Ø	500m	20						TO3	CØ
60	B176006	666m§	50 Ø	§J	5.0	2.5	400	5.0	400 #	2.0uØ	5.0Ø	1.5	10						TO3	CØ
61	B176007	666m§	50 Ø	§J	5.0	2.5	400	5.0	400 #	2.0uØ	5.0Ø	2.5	10						TO3	CØ
62	B176008	666m§	50 Ø	§J	5.0	2.5	550	5.0	550 #	2.0uØ	5.0Ø	100m	25						TO3	CØ
63	B176009	666m§	50 Ø	§J	5.0	2.5	550	5.0	550 #	2.0uØ	5.0Ø	500m	20						TO3	CØ
64	B176010	666m§	50 Ø	§J	5.0	2.5	550	5.0	550 #	2.0uØ	5.0Ø	1.5	10						TO3	CØ
65	B176011	666m§	50 Ø	§J	5.0	2.5	550	5.0	550 #	2.0uØ	5.0Ø	2.5	10						TO3	CØ
66	B176012	666m§	50 Ø	§J	5.0	2.5	650	5.0	650 #	2.0uØ	5.0Ø	100m	25						TO3	CØ
67	B176013	666m§	50 Ø	§J	5.0	2.5	650	5.0	650 #	2.0uØ	5.0Ø	500m	20						TO3	CØ
68	B176014	666m§	50 Ø	§J	5.0	2.5	650	5.0	650 #	2.0uØ	5.0Ø	1.5	10						TO3	CØ
69	B176015	666m§	50 Ø	§J	5.0	2.5	650	5.0	650 #	2.0uØ	5.0Ø	2.5	10						TO3	CØ
70	B176024	666m§	50 Ø	§J	5.0	2.5	400	5.0	400 #	2.0uØ	5.0Ø	1.5	10					△	TO3	CØ
71	B176025	666m§	50 Ø	§J	5.0	2.5	400	5.0	400 #	2.0uØ	5.0Ø	2.5	10					△	TO3	CØ
72	B176026	666m§	50 Ø	§J	5.0	2.5	550	5.0	550 #	2.0uØ	5.0Ø	1.5	10					△	TO3	CØ
73	B176027	666m§	50 Ø	§J	5.0	2.5	550	5.0	550 #	2.0uØ	5.0Ø	2.5	10					△	TO3	CØ
74	B176028	666m§	50 Ø	§J	5.0	2.5	650	5.0	650 #	2.0uØ	5.0Ø	1.5	10					△	TO3	CØ
75	B176029	666m§	50 Ø	§J	5.0	2.5	650	5.0	650 #	2.0uØ	5.0Ø	2.5	10					△	TO3	CØ
76#	BD130	666m	117 Ø	#J	15	7.0	100	7.0	60		4.0Ø	4.0	20	70	1.3M§			PL	TO3	
77#	BD141	666m	117 Ø	#J	10	7.0	160	7.0	140		4.0Ø	3.0	20	70				PL	TO3	
78#	BD142	666m	117 Ø	#J	15	7.0	50	5.0	40		4.0Ø	4.0	12	160	1.3M§			PL	TO3	
79#	BDY17	666m	115 Ø	§J	10	2.0	80	7.0	60	5.0m	4.0	6.0 △	10		1.0M§			D	TO3	CØ
80#	BDY18	666m	115 Ø	§J	10	2.0	120	7.0	70	5.0m	4.0	8.0 △	10		1.0M§			D	TO3	CØ
81#	BDY19	666m	115 Ø	§J	10	2.0	150	7.0	80	5.0m	4.0	10 △	10		1.0M§			D	TO3	CØ
82#	BDY38	666m	115	§J	6.0 #	2.0 #	50	7.0	40	1.0m	4.0Ø	2.0	30		1.0M§			D	TO3	CØ
83#	BLY17	666m	100 Ø	§J	10	2.0	100	4.0	100 §	10mØ	0.0	10 △	5.0	25 Ø	70M§			DPL	TO36	Ø
84#	BUY12	666m§	50 Ø	§J	10	2.0	210	5.0	80	200uØ	1.7Ø	8.0	10	21 Ø	11M		500n	ME	TO41	
85#	BUY13	666m§	50 Ø	$J	8.0	2.0	120	5.0	70	200uØ	1.7Ø	6.0	11	25 Ø	11M		500n	ME	TO41	
86	DTS702	666m	50		3.0	1.0	1.2k	5.0	1.0k	500u△	5.0Ø	2.0	2.5		1.5M§△		1.0u#	DM	TO3	C
87	MHT7201	666m§	50 Ø	§J	10		225	8.0	200	1.0uØ	5.0Ø	5.0	20	60 #	50M§△			PL	TO3	A
88	MHT7202	666m§	50 Ø	§J	10		250	8.0	225	1.0uØ	5.0Ø	5.0	20	60 #	50M§△			PL	TO3	A
89	MHT7203	666m§	50 Ø	§J	10		275	8.0	250	1.0uØ	5.0Ø	5.0	20	60 #	50M§△			PL	TO3	A
90	MHT7204	666m§	50 Ø	§J	10		325	8.0	300	1.0uØ	5.0Ø	5.0	20	60 #	50M§△			PL	TO3	A
91	MHT7205	666m§	50 Ø	§J	10		350	8.0	325	1.0uØ	5.0Ø	5.0	20	60 #	50M§△			PL	TO3	A
92	MHT7601	666m	60 Ø$	§J	10	5.0	60	8.0	40	500n	5.0Ø	5.0	40	120 #	60M§	100m		PE	TO3	CØ
93	MHT7602	666m	60 Ø$	§J	10	5.0	80	8.0	60	500n	5.0Ø	5.0	40	120 #	60M§	100m		PE	TO3	CØ
94	MHT7603	666m	60 Ø$	§J	10	5.0	100	8.0	80	500n	5.0Ø	5.0	40	120 #	60M§	100m		PE	TO3	CØ
95	MHT7604	666m	60 Ø$	§J	10	5.0	140	8.0	120	500n	5.0Ø	5.0	40	120 #	60M§	100m		PE	TO3	CØ
96	MHT7605	666m	60 Ø$	§J	10	5.0	170	8.0	150	500n	5.0Ø	5.0	40	120 #	60M§	120m		PE	TO3	CØ
97	MHT7606	666m	60 Ø$	§J	10	5.0	220	8.0	200	500n	5.0Ø	5.0	40	120 #	60M§	120m		PE	TO3	CØ
98	MHT7607	666m	60 Ø	$	10	5.0	60	8.0	40	500n	5.0	5.0	20	60	60M§	100m		PL	TO3	CØ
99	MHT7608	666m	60 Ø	$	10	5.0	80	8.0	60	500n	5.0	5.0	20	60	60M§	100m		PL	TO3	CØ
100	MHT7609	666m	60 Ø	$	10	5.0	100	8.0	80	500n	5.0	5.0	20	60	60M§	100m		PL	TO3	CØ
101	MHT7610	666m	60 Ø	$	10	5.0	140	8.0	120	500n	5.0	5.0	20	60	60M§	100m		PL	TO3	CØ
102	MHT7611	666m	60 Ø	$	10	5.0	170	8.0	150	500n	5.0	5.0	20	60	60M§	120m		PL	TO3	CØ
103	MHT7612	666m	60 Ø	$	10	5.0	220	8.0	200	500n	5.0	5.0	20	60	60M§	120m		PL	TO3	CØ
104	MJ3010	666m	100 Ø	§J				5.0	200			500m	20	180		670m			TO3	Ø
105	MJ3011	666m	100 Ø	§J				5.0	325			2.0	10			670m			TO3	Ø
106	PT1937	666m	5.0 Ø	#J	7.0		140	4.0	100 §	50m	2.0Ø	7.0	15	60 #	40M§△			PL	TO80	
107	SDT1001	666m§	100 Ø	§J	3.5	1.0		5.0	225 #	5.0mA△Ø	5.0Ø	1.0	10		5.0M§	1.0			TO3	CØ
108	SDT1002	666m§	100 Ø	§J	3.5	1.0		5.0	275 #	5.0mA△Ø	5.0Ø	1.0	10		5.0M§	1.0			TO3	CØ
109	SDT1003	666m§	100 Ø	§J	3.5	1.0		5.0	325 #	500uA△Ø	5.0Ø	1.0	20	80	5.0M§	600m			TO3	CØ
110	SDT1004	666m§	100 Ø	§J	3.5	1.0		5.0	400 #	500uA△Ø	5.0Ø	1.0	20	80	5.0M§	600m			TO3	CØ

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M A X	T E M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	SDT1005	666m§	100 Ø		§J	3.5	1.0		5.0	425 #	500u△Ø	5.0Ø	1.0	20	80	5.0M§	600m			TO3	CØ
2	SDT1006	666m§	100 Ø		§J	3.5	1.0		5.0	475 #	500u△Ø	5.0Ø	1.0	20	80	5.0M§	600m			TO3	CØ
3	SDT1007	666m§	100 Ø		§J	3.5	1.0		5.0	525 #	500u△Ø	5.0Ø	1.0	20	80	5.0M§	600m			TO3	CØ
4	SDT1011	666m§	100 Ø		§J	5.0	2.0		5.0	225 #	10m△Ø	5.0Ø	3.0	10		5.0M§	330m			TO3	CØ
5	SDT1012	666m§	100 Ø		§J	5.0	2.0		5.0	275 #	10m△Ø	5.0Ø	3.0	15		5.0M§	330m			TO3	CØ
6	SDT1013	666m§	100 Ø		§J	5.0	2.0		5.0	325 #	5.0m△Ø	5.0Ø	3.0	15	90	5.0M§	270m			TO3	CØ
7	SDT1014	666m§	100 Ø		§J	5.0	2.0		5.0	400 #	5.0m△Ø	5.0Ø	3.0	15	90	5.0M§	270m			TO3	CØ
8	SDT1015	666m§	100 Ø		§J	5.0	2.0		5.0	425 #	5.0m△Ø	5.0Ø	3.0	15	90	5.0M§	270m			TO3	CØ
9	SDT1016	666m§	100 Ø		§J	5.0	2.0		5.0	475 #	5.0m△Ø	5.0Ø	3.0	15	90	5.0M§	270m			TO3	CØ
10	SDT1017	666m§	100 Ø		§J	5.0	2.0		5.0	525 #	5.0m△Ø	5.0Ø	3.0	15	90	5.0M§	270m			TO3	CØ
11	SDT9201	666m	115 Ø		§J	10	7.0	55	7.0	45	5.0m#	4.0	4.0	20	70	200k	250m			TO3	CØ
12	SDT9202	666m	115 Ø		§J	10	7.0	100	7.0	80	5.0m#	4.0	4.0	20	70	200k	250m			TO3	CØ
13	SDT9203	666m	115 Ø		§J	10	7.0	120	7.0	100	5.0m#	4.0	4.0	20	70	200k	250m			TO3	CØ
14	SDT9204	666m	115 Ø		§J	10	7.0	140	7.0	120	5.0m#	4.0	4.0	20	70	200k	250m			TO3	
15	SDT9205	666m	115 Ø		§J	15	7.0	55	12	45	5.0m#	4.0Ø	4.0	15	70		250m			TO3	
16	SDT9206	666m	115 Ø		§J	15	7.0	80	12	60	5.0m#	4.0Ø	4.0	15	70		250m			TO3	
17	SDT9207	666m	115 Ø		§J	15	7.0	100	12	80	5.0m#	4.0Ø	4.0	15	70		250m			TO3	
18	SDT9208	666m	115 Ø		§J	15	7.0	120	12	100	5.0m#	4.0Ø	4.0	15	70		250m			TO3	
19	SDT9209	666m	115 Ø		§J	15	7.0	140	12	120	5.0m#	4.0Ø	4.0	15	70		250m			TO3	
20	SDT9210	666m	115 Ø		§J	15	7.0	40	5.0	30	5.0m#	2.0Ø	2.0	15			500m			TO3	CØ
21	ST18011	666m	50 Ø		§J	10		375	10	375		10	5.0	20		10M	300m		PE	TO61	
22	ST18012	666m	50 Ø		§J	10		300	10	300		10	5.0	20		10M	300m		PE	TO61	
23	ST18013	666m	50 Ø		§J	10		250	10	250		10	5.0	20		10M	300m		PE	TO61	
24	ST18014	666m	50 Ø		§J	10		200	10	200		10	5.0	20		10M	300m		PE	TO61	
25	STC4242	666m	117 Ø		§J	7.5	3.0		6.0	40	5.0m§†	10Ø	3.0	18	55 #				D	MD21	Ø
26	TI1121	666m#	80 Ø		§J	7.5	5.0	200	8.0	100	10m	4.0Ø	2.0	30	120 #	7.5M§△	500m		ME	TO53	AØ
27	TI1122	666m#	80 Ø		§J	7.5	5.0	200	8.0	100	10m	4.0Ø	2.0	15	60 #	7.5M§△	500m		ME	TO53	AØ
28	TI1123	666m#	80 Ø		§J	7.5	5.0	150	8.0	75	10m	4.0Ø	2.0	30	120 #	7.5M§△	500m		ME	TO53	AØ
29	TI1124	666m#	80 Ø		§J	7.5	5.0	150	8.0	75	10m	4.0Ø	2.0	15	60 #	7.5M§△	500m		ME	TO53	AØ
30	TI1125	666m#	80 Ø		§J	7.5	5.0	100	8.0	50	10m	4.0Ø	2.0	30	120 #	7.5M§△	500m		ME	TO53	AØ
31	TI1126	666m#	80 Ø		§J	7.5	5.0	100	8.0	50	10m	4.0Ø	2.0	15	60 #	7.5M§△	500m		ME	TO53	AØ
32	TI1131	666m#	80 Ø		§J	7.5	5.0	200	8.0	100	10m	4.0Ø	2.0	30	120 #	7.5M§△	500m		ME	MT10	Ø
33	TI1132	666m#	80 Ø		§J	7.5	5.0	200	8.0	100	10m	4.0Ø	2.0	15	60 #	7.5M§△	500m		ME	MT10	Ø
34	TI1133	666m#	80 Ø		§J	7.5	5.0	150	8.0	75	10m	4.0Ø	2.0	30	120 #	7.5M§△	500m		ME	MT10	Ø
35	TI1134	666m#	80 Ø		§J	7.5	5.0	150	8.0	75	10m	4.0Ø	2.0	15	60 #	7.5M§△	500m		ME	MT10	Ø
36	TI1135	666m#	80 Ø		§J	7.5	5.0	100	8.0	50	10m	4.0Ø	2.0	30	120 #	7.5M§△	500m		ME	MT10	Ø
37	TI1136	666m#	80 Ø		§J	7.5	5.0	100	8.0	50	10m	4.0Ø	2.0	15	60 #	7.5M§△	500m		ME	MT10	Ø
38	TI1141	666m#	80 Ø		§J	7.5	5.0	200	8.0	100	10m	4.0Ø	5.0	20	80 #	7.5M§△	500m		ME	TO53	AØ
39	TI1142	666m#	80 Ø		§J	7.5	5.0	200	8.0	100	10m	4.0Ø	5.0	10	40 #	7.5M§△	500m		ME	TO53	AØ
40	TI1143	666m#	80 Ø		§J	7.5	5.0	150	8.0	75	10m	4.0Ø	5.0	20	80 #	7.5M§△	500m		ME	TO53	AØ
41	TI1144	666m#	80 Ø		§J	7.5	5.0	150	8.0	75	10m	4.0Ø	5.0	10	40 #	7.5M§△	500m		ME	TO53	AØ
42	TI1145	666m#	80 Ø		§J	7.5	5.0	100	8.0	50	10m	4.0Ø	5.0	20	80 #	7.5M§△	500m		ME	TO53	AØ
43	TI1146	666m#	80 Ø		§J	7.5	5.0	100	8.0	50	10m	4.0Ø	5.0	10	40 #	7.5M§△	500m		ME	TO53	AØ
44	TI1151	666m#	80 Ø		§J	7.5	5.0	200	8.0	100	10m	4.0Ø	5.0	20	80 #	7.5M§△	500m		ME	MT10	
45	TI1152	666m#	80 Ø		§J	7.5	5.0	200	8.0	100	10m	4.0Ø	5.0	10	40 #	7.5M§△	500m		ME	MT10	Ø
46	TI1153	666m#	80 Ø		§J	7.5	5.0	150	8.0	75	10m	4.0Ø	5.0	20	80 #	7.5M§△	500m		ME	MT10	Ø
47	TI1154	666m#	80 Ø		§J	7.5	5.0	150	8.0	75	10m	4.0Ø	5.0	10	40 #	7.5M§△	500m		ME	MT10	Ø
48	TI1155	666m#	80 Ø		§J	7.5	5.0	100	8.0	50	10m	4.0Ø	5.0	20	80 #	7.5M§△	500m		ME	MT10	Ø
49	TI1156	666m#	80 Ø		§J	7.5	5.0	100	8.0	50	10m	4.0Ø	5.0	10	40 #	7.5M§△	500m		ME	MT10	Ø
50	TK3055	666m	115 Ø		§J	15	7.0	95	7.0	60 ☑		4.0Ø	4.0	20	70 †	20k△	280m		D△	TO3	
51#	ZT3442	666m	117 Ø		§C	10	7.0	160	7.0	140	30m#	4.0Ø	3.0	20	70	80k§△	500m		D△	TO3	Ø
52	2N3863†	667m	117 Ø§		C	7.5	3.0	70	7.0	50	1.0m#	2.0Ø	3.0	30	60	500k§△	.33	8.0u☑		TO3	CØ
53▼	2N5622	667m#	100 Ø		§J	10	3.0	80 †	6.0†	60	1.0m#♦	5.0Ø	5.0	70	200 #	40M§△				TO3	CØ
54▼	2N5624	667m#	100 Ø		§J	10	3.0	100 †	6.0†	80	1.0m#♦	5.0Ø	5.0	30	90 #	30M§△				TO3	CØ
55▼	2N5626	667m#	100 Ø		§J	10	3.0	100 †	6.0†	80	1.0m#♦	5.0Ø	5.0	70	200 #	40M§△				TO3	CØ
56▼	2N5628	667m#	100 Ø		§J	10	3.0	120 †	6.0†	100	1.0m#♦	5.0Ø	5.0	30	90 #	30M§△				TO3	CØ
57	DTS701	667m	25			.50	.10		5.0	800	.50m△	5.0Ø	.12	20		1.5M§△			DM	TO3	C
58	2N3667	670m	117 Ø		§J	15	7.0	50	5.0	50	5.0m#	3.0Ø	8.0	15	60 #	500k§△		6.0uØ		TO3	CØ
59	2N5412†	671m	100 Ø		§J	15	3.0	80	7.0	60	1.0m#	1.5Ø	2.0	10	160	60M§△	100m	200n		TO61	AØ
60	2N4348	685m	120 Ø		§J	10	4.0	140 †	7.0†	120	200m△Ø	4.0Ø	5.0	15	60 #		200m			TO3	Ø
61	STC4252	685m	120 Ø		§J	8.0	3.0		10	40	20m#†	4.0Ø	5.0	15 #		1.0M§△	200m		D	TO3	CØ
62	STC4253	685m	120 Ø		§J	8.0	3.0		10	60	20m#†	4.0Ø	5.0	15 #		1.0M§△	200m		D	TO3	CØ
63	STC4254	685m	120 Ø		§J	8.0	3.0		10	80	20m#†	4.0Ø	5.0	15 #		1.0M§△	200m		D	TO3	CØ
64	STC4255	685m	120 Ø		§J	8.0	3.0		10	100	20m#†	4.0Ø	5.0	15 #		1.0M§△	300m		D	TO3	CØ
65	MJ2801	709m	120 Ø		§J			50	7.0	40			8.0	15	60	4.0M§△	190m			TO3	Ø
66	TIP35†	714m	3.5		§J	25	5.0	40	5.0	40	1.0m△	4.0	5.0	20	100 #	3.0k§△		600nØ	D	X86	BØ
67	TIP35A†	714m	3.5		§J	25	5.0	60	5.0	60	1.0m△	4.0	5.0	20	100 #	3.0k§△		600nØ	D	X86	BØ
68	MJE3055	718m	90 Ø		§J	10	6.0	70	5.0	60	1.0m	4.0Ø	4.0	20 #	70 #	2.0M§△			†△	X87a	B
69▼	MJE2801	719m	90 Ø		§J	10	5.0	60	4.0	60	100u	2.0Ø	3.0	25	100					X58a	B
70	PT1941†	731m	90 Ø		§J	7.0	5.0	140	4.0	100 §	50m	2.0Ø	7.0	15	60	40M§△	230m	1.0uØ	DPL	MT39	
71	STT2650	751m$	75 Ø		§J	7.5	1.0	150	12	150	1.0u§	15Ø	2.0	30	90 #	25M§			DPL△	TO61	A
72	STT2651	751m$	75 Ø		§J	7.5	1.0	140	12	120	1.0u§	15Ø	2.0	30	90 #	25M§			DPL△	TO61	A
73	STT2652	751m$	75 Ø		§J	7.5	1.0	140	12	120	1.0u§	15Ø	2.0	50	150 #	25M§			DPL△	TO61	A
74	STT2653	751m$	75 Ø		§J	7.5	1.0	120	12	100	1.0u§	15Ø	2.0	30	90 #	25M§△			DPL△	TO61	A
75	STT2654	751m$	75 Ø		§J	7.5	1.0	100	12	80	1.0u§	15Ø	2.0	30	90 #	25M§△			DPL△	TO61	A
76	STT2655	751m$	75 Ø		§J	7.5	1.0	75	10	60	1.0u§	15Ø	2.0	30	90 #	25M§△			DPL△	TO61	A
77	STT2656	751m$	75 Ø		§J	7.5	1.0	40	10	30	500u§	15Ø	2.0	25 #		25M§△			DPL△	TO61	A
78	2N4130	800m	120 Ø		§J	10	2.0	80	4.0	65	20u	5.0Ø	2.0	10	60 #	1.2M§△				TO3	D☑
79	2N5038†	800m	140 Ø		§J	20	5.0	150	7.0	90 ☑	50m#	5.0Ø	12	20	100	60M§△	125m	500n		TO3	CØ
80	2N5039†	800m	140 Ø		§J	20	5.0	120	7.0	75 ☑	50m#	5.0Ø	10	20	100	60M§△	125m	500n		TO3	CØ
81	2N5330†	800m$	80 Ø		§J	30	5.0	150	8.0	90		2.0Ø	10	40	120	80M§△	60m	350nØ		TO61	A
82	2N5466	800m$	80 Ø		§J	3.0	1.0	500	8.0	400	250u#	5.0Ø	3.0	15	60 #	2.5M§				TO3	AØ
83	2N5467	800m$	80 Ø		§J	3.0	1.0	700	8.0	400	250u#	5.0Ø	3.0	15	60 #	2.5M§				TO3	AØ
84	2N5671†	800m	140 Ø		§J	30	10	120	7	90 ☑	10m△	2.0Ø	15	20	100	50M§△	50m	500nØ	E	TO3	CØ
85	2N5672†	800m	140 Ø		§J	30	10	150	7	120 ☑	10m△	2.0Ø	15	20	100	50M§△	50m	500nØ	E	TO3	CØ
86▼	2N5709	800m	140 Ø		§J	12		70 †	4.0†	50	10m§†	10Ø	200m	5.0	50	50M§△				X92	R
87#	2SC407†	800m	100 Ø		§J	10	3.0	150	4.0	100	50m	5.0Ø	5.0	10	30	400k	200m	1.0u		TO3	
88▼#	2SD118BL	800m	100 Ø		§J	7.0	3.0	130	10	110	50uØ	5.0Ø	1.0	80	200	2.0M§	300m		D	TO3	CØ
89▼#	2SD118R	800m	100 Ø		§J	7.0	3.0	130	10	110	50uØ	5.0Ø	1.0	30	70	2.0M§	300m		D	TO3	CØ
90▼#	2SD118Y	800m	100 Ø		§J	7.0	3.0	130	10	110	50uØ	5.0Ø	1.0	50	120	2.0M§	300m		D	TO3	CØ
91▼#	2SD119BL	800m	100 Ø		§J	7.0	3.0	100	10	80	50uØ	5.0Ø	1.0	80	200	2.0M§	300m		D	TO3	CØ
92▼#	2SD119R	800m	100 Ø		§J	7.0	3.0	100	10	80	50uØ	5.0Ø	1.0	30	70	2.0M§	300m		D	TO3	CØ
93▼#	2SD119Y	800m	100 Ø		§J	7.0	3.0	100	10	80	50uØ	5.0Ø	1.0	50	120	2.0M§	300m		D	TO3	CØ
94▼	MJ1800	800m	100 Ø		§J	5.0			5.0	250	200u*	5.0Ø	400m	40	120 #					TO3	CØ
95#	2SD196	833m	125 Ø		§J	10		100	12	50	20uØ	4.0Ø	5.0	10	50		300m		D△	TO36	
96#	2SD197	833m	125 Ø		§J	10		130	12	70	20uØ	4.0Ø	5.0	10	50		240m		D△	TO36	
97	2N2015	854m	150 Ø		§C	10	6.0	100	10	50	50uØ	4.0Ø	5.0	15	50	25k	250m		D△	TO36	CØ
98	JAN2N2015	854m	150 Ø		§J	10	6.0	100	10	100 #	50uØ	4.0Ø	5.0	15	50		250m			TO36	CØ
99	2N2016	854m	150 Ø		§C	10	6.0	130	10	65	50uØ	4.0Ø	5.0	15	50	25k	250m		D△	TO36	CØ
100	JAN2N2016	854m	150 Ø		§J	10	6.0	130	10	130 #	50uØ	4.0Ø	5.0	15	50		250m			TO36	CØ
101	2N2338	854m			§J	7.5	5.0	60	6.0	40	200uØ	4.0Ø	3.0	15	60	20k†	500m	4.0uØ	D	TO26	AØ
102	2N3236	854m	150 Ø		§C	15	4.5	90	7.0	90	2.0m#	4.0Ø	5.0	17	60	1.0M§△				MD21	Ø
103	2N3238	854m	150 Ø		§C	15	7.5	80	8.0	80	5.0m#	12Ø	10	8.5	25	1.0M§△				MD21	Ø
104	2N3239	854m	150 Ø		§C	15	7.5	80	8.0	80	5.0m#	10Ø	10	8.5	25	1.0M§△				MD21	Ø
105	2N3240	854m	150 Ø		§C	15	7.5	160	8.0	160	5.0m#	10Ø	10	8.5	25	1.0M§△				MD21	Ø
106	2N3713	854m	150 Ø		§J	10	4.0	80	7.0	60	1.0m#	2.0Ø	1.0	25	75	30k△				TO3	CØ
107	JAN2N3713†	854m	150 Ø		§J	10	4.0	80	7.0	60	1.0mØ	2.0Ø	3.0	20	80 #	4.0M§△		1.5uØ☑		TO3	CØ
108	2N3714	854m	150 Ø		§J	10	4.0	100	7.0	80	1.0m#	2.0Ø	1.0	25	75	30k△				TO3	CØ
109	JAN2N3714†	854m	150 Ø		§J	10	4.0	100	7.0	80	1.0mØ	2.0Ø	3.0	20	80 #	4.0M§△		1.5uØ☑		TO3	CØ
110	2N3715	854m	150 Ø		§J	10	4.0	80	7.0	60	1.0m#	2.0Ø	1.0	50	150	30k△				TO3	CØ

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AEXMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CONFIG
1	JAN2N3715†	854m	150 Ø	§J	10	4.0	80	7.0	60	1.0mØ	2.0Ø	3.0	50	150 #	4.0M§Δ		1.5uØØ		TO3	CØ
2	2N3716	854m	150 Ø	§J	10	4.0	100	7.0	80	1.0m#	2.0Ø	1.0	50	150	30kΔ				TO3	CØ
3	JAN2N3716†	854m	150 Ø	§J	10	4.0	100	7.0	80	1.0mØ	2.0Ø	3.0	50	150 #	4.0M§Δ		1.5uØØ		TO3	CØ
4	2N3771	854m	150 Ø	§J	30	7.5	50	5.0	40	2.0m	4.0Ø	15	15	60 #		130m			TO3	CØ
5	2N3772	854m	150 Ø	§J	20	5.0	100	7.0	60	5.0m	4.0Ø	10	15	60 #		140m			TO3	CØ
6	2N3773	854m	150 Ø	§J	16	4.0	160	7.0	140	2.0mØ	4.0Ø	8.0	15	60 #		500m			TO3	CØ
7	1723-0405	854m	150 Ø	§J	20 #	5.0	40	7.0	40 Ø	5.0m#	4.0Ø	5.0	20 #		30M§Δ		250nØØ	EMΔ	TO3	
8	1723-0410	854m	150 Ø	§J	20 #	5.0	40	7.0	40 Ø	5.0m#	4.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO3	
9	1723-0605	854m	150 Ø	§J	20 #	5.0	60	7.0	60 Ø	5.0m#	4.0Ø	5.0	20 #		30M§Δ		250nØØ	EMΔ	TO3	
10	1723-0610	854m	150 Ø	§J	20 #	5.0	60	7.0	60 Ø	5.0m#	4.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO3	
11	1723-0805	854m	150 Ø	§J	20 #	5.0	80	7.0	80 Ø	5.0m#	4.0Ø	5.0	20 #		30M§Δ		250nØØ	EMΔ	TO3	
12	1723-0810	854m	150 Ø	§J	20 #	5.0	80	7.0	80 Ø	5.0m#	4.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO3	
13	1723-1005	854m	150 Ø	§J	20 #	5.0	100	7.0	100 Ø	5.0m#	4.0Ø	5.0	20 #		30M§Δ		250nØØ	EMΔ	TO3	
14	1723-1010	854m	150 Ø	§J	20 #	5.0	100	7.0	100 Ø	5.0m#	4.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO3	
15	1723-1205	854m	150 Ø	§J	20 #	5.0	120	7.0	120 Ø	5.0m#	4.0Ø	5.0	20 #		30M§Δ		250nØØ	EMΔ	TO3	
16	1723-1210	854m	150 Ø	§J	20 #	5.0	120	7.0	120 Ø	5.0m#	4.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO3	
17	1723-1405	854m	150 Ø	§J	20 #	5.0	140	7.0	140 Ø	5.0m#	4.0Ø	5.0	20 #		30M§Δ		250nØØ	EMΔ	TO3	
18	1723-1410	854m	150 Ø	§J	20 #	5.0	140	7.0	140 Ø	5.0m#	4.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO3	
19	1723-1605	854m	150 Ø	§J	20 #	5.0	160	7.0	160 Ø	5.0m#	4.0Ø	5.0	20 #		30M§Δ		250nØØ	EMΔ	TO3	
20	1723-1610	854m	150 Ø	§J	20 #	5.0	160	7.0	160 Ø	5.0m#	4.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO3	
21	1723-1805	854m	150 Ø	§J	20 #	5.0	180	7.0	180 Ø	5.0m#	4.0Ø	5.0	20 #		30M§Δ		250nØØ	EMΔ	TO3	
22	1723-1810	854m	150 Ø	§J	20 #	5.0	180	7.0	180 Ø	5.0m#	4.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO3	
23	1723-2005	854m	150 Ø	§J	20 #	5.0	200	7.0	200 Ø	5.0m#	4.0Ø	5.0	20 #		30M§Δ		250nØØ	EMΔ	TO3	
24	1763-0610	854m$	85 $	§J	40 #	5.0	60	7.0	60 Ø	500u#	2.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO3	
25	1763-0620	854m	85 $	§J	40 #	5.0	60	7.0	60 Ø	500u#	2.5Ø	20	20 #		30M§Δ		450nØØ	EMΔ	TO3	
26	1763-0630	854m$	85 $	§J	40 #	5.0	60	7.0	60 Ø	500u#	3.0Ø	30	20 #		30M§Δ		500nØØ	EMΔ	TO3	
27	1763-0810	854m$	85 $	§J	40 #	5.0	80	7.0	80 Ø	500u#	2.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO3	
28	1763-0820	854m	85 $	§J	40 #	5.0	80	7.0	80 Ø	500u#	2.5Ø	20	20 #		30M§Δ		450nØØ	EMΔ	TO3	
29	1763-0830	854m$	85 $	§J	40 #	5.0	80	7.0	80 Ø	500u#	3.0Ø	30	20 #		30M§Δ		500nØØ	EMΔ	TO3	
30	1763-1010	854m$	85 $	§J	40 #	5.0	100	7.0	100 Ø	500u#	2.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO3	
31	1763-1020	854m	85 $	§J	40 #	5.0	100	7.0	100 Ø	500u#	2.5Ø	20	20 #		30M§Δ		450nØØ	EMΔ	TO3	
32	1763-1030	854m$	85 $	§J	40 #	5.0	100	7.0	100 Ø	500u#	3.0Ø	30	20 #		30M§Δ		500nØØ	EMΔ	TO3	
33	1763-1210	854m$	85 $	§J	40 #	5.0	120	7.0	120 Ø	500u#	2.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO3	
34	1763-1220	854m	85 $	§J	40 #	5.0	120	7.0	120 Ø	500u#	2.5Ø	20	20 #		30M§Δ		450nØØ	EMΔ	TO3	
35	1763-1230	854m$	85 $	§J	40 #	5.0	120	7.0	120 Ø	500u#	3.0Ø	30	20 #		30M§Δ		500nØØ	EMΔ	TO3	
36	1763-1410	854m$	85 $	§J	40 #	5.0	140	7.0	140 Ø	500u#	2.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO3	
37	1763-1420	854m	85 $	§J	40 #	5.0	140	7.0	140 Ø	500u#	2.5Ø	20	20 #		30M§Δ		450nØØ	EMΔ	TO3	
38	1763-1430	854m$	85 $	§J	40 #	5.0	140	7.0	140 Ø	500u#	3.0Ø	30	20 #		30M§Δ		500nØØ	EMΔ	TO3	
39	1763-1610	854m$	85 $	§J	40 #	5.0	160	7.0	160 Ø	500u#	2.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO3	
40	1763-1620	854m	85 $	§J	40 #	5.0	160	7.0	160 Ø	500u#	2.5Ø	20	20 #		30M§Δ		450nØØ	EMΔ	TO3	
41	1763-1630	854m$	85 $	§J	40 #	5.0	160	7.0	160 Ø	500u#	3.0Ø	30	20 #		30M§Δ		500nØØ	EMΔ	TO3	
42	1763-1810	854m$	85 $	§J	40 #	5.0	180	7.0	180 Ø	500u#	2.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO3	
43	1763-1820	854m	85 $	§J	40 #	5.0	180	7.0	180 Ø	500u#	2.5Ø	20	20 #		30M§Δ		450nØØ	EMΔ	TO3	
44	40411	854m	150 Ø	§J	30	15		4.0	90 §	500u*	4.0Ø	4.0	35	100	800k§	200m		D	TO3	CØ
45	B177000	854m	150 Ø	§J	30		100	7.0	80	5.0m	4.0Ø	10	15	60 #				DM	TO3	CØ
46▼	MJ3771†	854m	150 Ø	§J	30	7.5	50	5.0	40	2.0m	4.0Ø	15	15	60 #	2.0M§Δ		350n		TO3	CØ
47▼	MJ3772†	854m	150 Ø	§J	20	5.0	100	7.0	60	5.0m	4.0Ø	10	15	60 #	2.0M§Δ		350n		TO3	CØ
48▼	MJ7000	854m	150 Ø	§J	30	10	100	7.0	100	5.0u	4.0Ø	10	20	100 #	30M§Δ			Δ	TO63	
49#	ZT2015	854m	150 Ø	§C	10	6.0	100	10	50	50uØ	4.0Ø	5.0	15	50	25k	250m	4.0uØ	DΔ	TO36	Ø
50#	ZT2016	854m	150 Ø	§C	10	6.0	130	10	65	50uØ	4.0Ø	5.0	15	50	25k	250m	4.0uØ	DΔ	TO36	Ø
51▼	JAN2N3771†	857m	6.0	§J	30	7.5	50	7.0	40	2.0m#	4.0Ø	15 Ø	15 #	60	600k§Δ				TO3	CØ
52▼	JAN2N3772†	857m	6.0	§J	20	5.0	100	7.0	60	2.0m#	4.0Ø	10 Ø	15 #	60	600k§Δ				TO3	CØ
53	2N5632	857m	150 Ø	§J	10	5.0	100	7.0	100	1.0m	2.0Ø	5.0	25	100 #	1.0M§Δ				TO3	CØ
54	2N5633	857m	150 Ø	§J	10	5.0	120	7.0	120	1.0m	2.0Ø	5.0	20	80 #	1.0M§Δ				TO3	CØ
55	2N5634	857m	150 Ø	§J	10	5.0	140	7.0	140	1.0m	2.0Ø	5.0	15	60 #	1.0M§Δ				TO3	CØ
56	2N5636	860m	15 Ø	§S	1.5		60	4.0	35	1.0mØ	5.0Ø	200m	5.0		450M§Δ				MT71b	R
57	2N5641	860m	15 Ø	§S	1.0		65	4.0	35	1.0mØ	5.0Ø	100m	5.0		300M§Δ				MT71b	R
58	2N1899	1.0	125 Ø	§C	10	5.0	140	5.0	50	30m#	2.0Ø	10	10	30	50M§Δ	100m	1.0uØ		MT38	
59	2N1900	1.0	125 Ø	§J	10	5.0	140	5.0	100 §	25m	2.0Ø	10	8.0 #		50M§Δ	150m		PL	MT38	
60	2N1901	1.0	125 Ø	§C	10	5.0	140	5.0	50	30m#	2.0Ø	10	20	60	50M§Δ	100m	500nØ		MT38	
61	2N1902	1.0	125 Ø	§C	10	5.0	140	5.0	50	30m#	2.0Ø	10	10	30	50M§Δ	100m	1.0uØ		MT39	
62	2N1904	1.0	125 Ø	§C	10	5.0	140	5.0	50	30m#	2.0Ø	10	20	60	50M§Δ	100m	500nØ		MT39	
63	2N3076	1.0	125 Ø	§J	10	5.0	140	5.0	100 §		2.0Ø	7.0	30	90 #	50M§Δ	100m	500nØ	PL	MT38	
64	2N3237	1.0	200 Ø	§C	20	7.5	90	7.0	75	5.0m#	8.0Ø	10	12	36	1.0M§Δ				MD21	Ø
65	2N3260	1.0	200 Ø	§C	30	10	200	10	200	2.0m#	3.0Ø	20	10	40	600M§Δ	80m	6.0uØØ		MT50	Ø
66	2N3265†	1.0 §	125 Ø	§J	25	10	150	7.0	90 Ø	20m#	2.0Ø	15	20	55 #	20M§Δ		500n		MT50b	AØ
67	2N3266†	1.0 §	125 Ø	§J	25	10	120	7.0	60 Ø	20m#	3.0Ø	15	20	80 #	20M§Δ		500n		MT50b	AØ
68	2N3597†	1.0 $	100 Ø	§C	20	5.0	60	8.0	40	100n	2.0Ø	50m	75	225	30M§Δ	80m	760uØ		TO63	AØ
69	2N3598†	1.0 $	100 Ø	§C	20	5.0	80	8.0	60	100n	2.0Ø	50m	75	225	30M§Δ	80m	760uØ		TO63	AØ
70	2N3599†	1.0 $	100 Ø	§C	20	5.0	100	8.0	80	100n	2.0Ø	50m	75	225	30M§Δ	80m	760uØ		TO63	AØ
71	2N3876	1.0	125 Ø	§J	10	5.0	140	5.0	50	30m#	2.0Ø	10	25	150	50M§Δ	100m			TO81	AØ
72	2N4002†	1.0 $	100 Ø	§J	30	10	100	8.0	80	1.0m§	4.0Ø	15	20	80 #	30M§Δ	40m	1.0uØ		TO63	AØ
73	2N4003†	1.0 $	100 Ø	§J	30	10	120	8.0	100	1.0m§	4.0Ø	15	20	80 #	30M§Δ	40m	1.0uØ		TO63	AØ
74	2N4210	1.0	100 Ø	§J	20	8.0	80	10	60	500u§	6.0Ø	10	20	100	10M§Δ	150m			TO63	AØ
75	2N4211	1.0	100 Ø	§J	20	8.0	100	10	80	500u§	6.0Ø	10	20	100	10M§Δ	150m			TO63	AØ
76#	2N5072	1.0	125 Ø	§S	10	5.0	100	5.0	100 §	10mØ	10Ø	3.0	15	60	40M§Δ	100m			MT38a	AØ
77	2N5331†	1.0 $	100 Ø	§J	30	5.0	150	8.0	90		2.0Ø	10	40	120	80M§Δ	60m	350nØ		TO63	A
78	2N5387	1.0	3.5	§J	7.5	3.0	200	10	200	1.0m§♦	5.0Ø	2.0	25	100 #	15M§Δ				TO61	AØ
79	2N5388	1.0	3.5	§J	7.5	3.0	250	10	250	1.0m§♦	5.0Ø	2.0	25	100 #	15M§Δ				TO61	AØ
80	2N5389	1.0	3.5	§J	7.5	3.0	300	10	300	1.0m§♦	5.0Ø	2.0	25	100 #	15M§Δ				TO61	AØ
81	2N5539†	1.0 $	100 Ø	§J	20	2.0	175	7.0	130	500nØ	5.0Ø	10	25	75 #	20M§Δ		500n		TO63	AØ
82	2N5559†	1.0 $	100 Ø	§J	10	5.0	150	7.0	120 #		2.0Ø	4.0	12	60	800k§Δ	190m	6.0uØ		TO3	CØ
83	2N5584†	1.0 $	100 Ø	§J	30	5.0	225	8.0	180	50m#	3.0Ø	10	40	120	70M§Δ		350nØ		TO63	AØ
84▼	2N5733†	1.0	150 Ø#	§J	30	6.0	100	5.0	80	1.0m§	2.0Ø	10	30	300 #	30M§		700n	PE	TO63	AØ
85▼	2N5734†	1.0	150 Ø#	§J	30	6.0	100	5.0	80	1.0m§	2.0Ø	10	30	300 #	30M§		700n	PE	TO3	CØ
86#	2SD54	1.0	150 Ø	§J	10	4.0	100	12	50	200uØ	4.0Ø	5.0	12	48	1.2Mt			D	TO36	
87#	2SD132	1.0	150 Ø	§J	20	4.0	100	6.0	65	5.0mØ	5.0Ø	20	20	100 #		50m		EM	MD18a	
88#	2SD196A	1.0	150	§J	10		100	12	50	20uØ	4.0Ø	5.0	10	50	1.2Mt	700m		D	TO36	
89#	2SD197A	1.0	150	§J	10		130	12	70	20uØ	4.0Ø	5.0	10	50	1.2Mt	500m		D	TO36	
90#	108T2	1.0	175		30	15	120	10	80		4.0	10	20	60		140m	200n§	ME	TO3	
91#	109T2	1.0	175		30	15	160	10	125		4.0	10	20	60		140m	200n§	ME	TO3	
92	1768-0610	1.0	100 $	§J	40 #	5.0	60	7.0	60 Ø	500u#	2.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO63	
93	1768-0620	1.0 $	100 $	§J	40 #	5.0	60	7.0	60 Ø	500u#	2.5Ø	20	20 #		30M§Δ		450nØØ	EMΔ	TO63	
94	1768-0630	1.0	100 $	§J	40 #	5.0	60	7.0	60 Ø	500u#	3.0Ø	30	20 #		30M§Δ		500nØØ	EMΔ	TO63	
95	1768-0810	1.0	100 $	§J	40 #	5.0	80	7.0	80 Ø	500u#	2.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO63	
96	1768-0820	1.0 $	100 $	§J	40 #	5.0	80	7.0	80 Ø	500u#	2.5Ø	20	20 #		30M§Δ		450nØØ	EMΔ	TO63	
97	1768-0830	1.0	100 $	§J	40 #	5.0	80	7.0	80 Ø	500u#	3.0Ø	30	20 #		30M§Δ		500nØØ	EMΔ	TO63	
98	1768-1010	1.0	100 $	§J	40 #	5.0	100	7.0	100 Ø	500u#	2.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO63	
99	1768-1020	1.0 $	100 $	§J	40 #	5.0	100	7.0	100 Ø	500u#	2.5Ø	20	20 #		30M§Δ		450nØØ	EMΔ	TO63	
100	1768-1030	1.0	100 $	§J	40 #	5.0	100	7.0	100 Ø	500u#	3.0Ø	30	20 #		30M§Δ		500nØØ	EMΔ	TO63	
101	1768-1210	1.0	100 $	§J	40 #	5.0	120	7.0	120 Ø	500u#	2.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO63	
102	1768-1220	1.0 $	100 $	§J	40 #	5.0	120	7.0	120 Ø	500u#	2.5Ø	20	20 #		30M§Δ		450nØØ	EMΔ	TO63	
103	1768-1230	1.0	100 $	§J	40 #	5.0	120	7.0	120 Ø	500u#	3.0Ø	30	20 #		30M§Δ		500nØØ	EMΔ	TO63	
104	1768-1410	1.0	100 $	§J	40 #	5.0	140	7.0	140 Ø	500u#	2.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO63	
105	1768-1420	1.0 $	100 $	§J	40 #	5.0	140	7.0	140 Ø	500u#	2.5Ø	20	20 #		30M§Δ		450nØØ	EMΔ	TO63	
106	1768-1430	1.0	100 $	§J	40 #	5.0	140	7.0	140 Ø	500u#	3.0Ø	30	20 #		30M§Δ		500nØØ	EMΔ	TO63	
107	1768-1610	1.0 $	100 $	§J	40 #	5.0	160	7.0	160 Ø	500u#	2.0Ø	10	20 #		30M§Δ		300nØØ	EMΔ	TO63	
108	1768-1620	1.0 $	100 $	§J	40 #	5.0	160	7.0	160 Ø	500u#	2.5Ø	20	20 #		30M§Δ		450nØØ	EMΔ	TO63	
109	1768-1630	1.0 $	100 $	§J	40 #	5.0	160	7.0	160 Ø	500u#	3.0Ø	30	20 #		30M§Δ		500nØØ	EMΔ	TO63	
110	1768-1810	1.0 $	100 $	§J	40 #	5.0	180	7.0	180 Ø	500u#	2.0Ø	10	20 #		30M§Δ		500nØØ	EMΔ	TO63	

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1	1768-1820	1.0 §	100 §	§J	40 #	5.0	180	7.0	180 ☑	500u#	2.5Ø	20	20 #		30M§Δ		450nØØ☑	EMΔ	TO63	
2#	BLY40	1.0	125 Ø	$C	10	5.0	100	6.0	100 §	30m	10	3.0	15	60	40M§Δ	1.0		E	MT38	
3#	DT6103	1.0	50 Ø	♦J	5.0	1.0	200	4.0	135	10m	5.0Ø	5.0	10	50	500k§Δ	500m	1.0u		TO36	
4#	DT6104	1.0	50 Ø	♦J	5.0	1.0	300	4.0	200	10m	5.0Ø	5.0	10	50	500k§Δ	500m	1.0u		TO36	
5#	DT6105	1.0	50 Ø	♦J	5.0	1.0	400	4.0	265	10m	5.0Ø	5.0	10	50	500k§Δ	500m	1.0u		TO36	
6#	DT6106	1.0	50 Ø	♦J	5.0	1.0	500	4.0	325	10m	5.0Ø	5.0	10	50	500k§Δ	500m	1.0u		TO36	
7	DTS401†	1.0	100 Ø	$J	2.0	1.0		5.0	400	500uΔ	5.0Ø	500m	20	100	4.0M§			D	TO3	AØ
8	DTS413†	1.0	75 Ø	$J	2.0	1.0	400	5.0	400	500u#†	5.0Ø	500m	20	80	6.0M§	1.6	400nØ	ME	TO3	CØ
9	MHT8002	1.0 §	100 Ø	§J	20		80	8.0	60	100uØ	5.0Ø	10	40	120 #	20M§Δ			D	TO63	Ø
10	MHT8003	1.0 §	100 Ø	§J	20		100	8.0	80	100uØ	5.0Ø	10	40	120 #	20M§Δ			D	TO63	Ø
11	MHT8012	1.0 §	100 Ø	§J	20		80	8.0	60	10uØ	5.0Ø	10	20	60 #	25M§Δ			PL	TO63	Ø
12	MHT8013	1.0 §	100 Ø	§J	20		100	8.0	80	10uØ	5.0Ø	10	20	60 #	25M§Δ			PL	TO63	Ø
13	MHT8015	1.0 §	100 Ø	§J	20		80	8.0	60	10uØ	5.0Ø	10	40	120 #	25M§Δ			PL	TO63	Ø
14	MHT8016	1.0 §	100 Ø	§J	20		100	8.0	80	10uØ	5.0Ø	10	40	120 #	25M§Δ			PL	TO63	Ø
15	MHT8045	1.0 §	100 Ø	§J	20		40	5.0	25	10uØ	5.0Ø	10	40 #					PL	TO63	AØ
16	MHT8070	1.0 §	100 Ø	§J	20		80	8.0	60	10uØ	5.0Ø	10	100 #		25M§Δ			PL	TO63	AØ
17	MHT8071	1.0 §	100 Ø	§J	20		100	8.0	80	10uØ	5.0Ø	10	100 #		25M§Δ			PL	TO63	AØ
18	MHT8301	1.0 §	100 Ø	§J	30		80	8.0	60	10uØ	5.0Ø	10	40	120 #	25M§Δ			PL	TO63	AØ
19	MHT8302	1.0 §	100 Ø	§J	30		100	8.0	80	10uØ	5.0Ø	10	40	120 #	25M§Δ			PL	TO63	AØ
20	MHT8303	1.0 §	100 Ø	§J	30		80	8.0	60	10uØ	5.0Ø	10	100 #		25M§Δ			PL	TO63	AØ
21	MHT8304	1.0 §	100 Ø	§J	30		100	8.0	80	10uØ	5.0Ø	10	100 #		25M§Δ			PL	TO63	AØ
22	MJ413	1.0	125 Ø	$J	10	2.0	400	5.0	400 #	250u#	5.0Ø	500m	20	80 #	2.5M§Δ			Δ	TO3	CØ
23	MJ423	1.0	125 Ø	$J	10	2.0	400	5.0	400 #	250u#	5.0Ø	1.0	30	90 #	2.5M§Δ			Δ	TO3	CØ
24	MJ431	1.0	125 Ø	$J	10	2.0	400	5.0	400 #	2.5m#	5.0Ø	2.5	15	35 #	2.5M§Δ			Δ	TO3	CØ
25	SDT1000	1.0	100		10	5.0	400	5.0	400	2.0m	5.0	1.0	30	90	200k				TO3	
26	SDT8801	1.0 §	100 Ø	§J	20		200	8.0	200	1.0uØ	5.0Ø	10	15	60 #	30M§Δ			PL	TO63	A
27	SDT8802	1.0 §	100 Ø	§J	20		225	8.0	225	1.0uØ	5.0Ø	10	15	60 #	30M§Δ			PL	TO63	A
28	SDT8803	1.0 §	100 Ø	§J	20		250	8.0	250	1.0uØ	5.0Ø	10	15	60 #	30M§Δ			PL	TO63	A
29	SDT8804	1.0 §	100 Ø	§J	20		275	8.0	275	1.0uØ	5.0Ø	10	15	60 #	30M§Δ			PL	TO63	A
30	SDT8805	1.0 §	100 Ø	§J	20		300	8.0	300	1.0uØ	5.0Ø	10	15	60 #	30M§Δ			PL	TO63	A
31	ST7400	1.0	100	§J	20		120	10	100	500u§	6.0Ø	10	20	100	10k§Δ	100m		PL	TO63	Ø
32	ST17060	1.0	100 Ø	§J	30		125	10	80	100u	10	10	20	120	10M	100m	2.0u	PE	TO61	
33	ST17061	1.0	100 Ø	§J	30		145	10	100	100u	10	10	20	120	10M	100m	2.0u	PE	TO61	
34	ST17062	1.0	100 Ø	§J	30		170	10	120	100u	10	10	20	120	10M	100m	2.0u	PE	TO61	
35	ST18007	1.0	100 Ø	§J	20		375	10	375		10	10	20		10M	150m		PE	TO63	
36	ST18008	1.0	100 Ø	§J	20		300	10	300		10	10	20		10M	150m		PE	TO63	
37	ST18009	1.0	100 Ø	§J	20		250	10	250		10	10	20		10M	150m		PE	TO63	
38	ST18010	1.0	100 Ø	§J	20		200	10	200		10	10	20		10M	150m		PE	TO63	
39	STC1726	1.0 §	200 Ø	§J	20	4.5		10	80	2.0m	3.0	10	20	80		100m		ME	MT18	
40	STC1728	1.0 §	200 Ø	§J	30	4.5		10	80	2.0m	3.0	20	10	40		80m		ME	MT18	
41	STC1731	1.0 §	200 Ø	§J	20	4.5		10	100	2.0m	3.0	10	20	80		100m		ME	MT18	
42	STC1733	1.0 §	200 Ø	§J	30	4.5		10	100	2.0m	3.0	20	10	40		80m		ME	MT18	
43	STC1736	1.0 §	200 Ø	§J	20	4.5		10	150	2.0m	3.0	10	20	80		100m		ME	MT18	
44	STC1738	1.0	200 Ø	§J	30	4.5		10	150	2.0m	3.0	20	10	40		80m		ME	MT18	
45	STC2220	1.0 §	200 Ø	§J	20	10	80	10	80	2.0m§	3.0Ø	10	10	50 #		150m	1.0uØ	D	MD21	Ø
46	STC2221	1.0 §	200 Ø	§J	20	10	100	10	100	2.0m§	3.0Ø	10	10	50 #		150m	1.0uØ	D	MD21	Ø
47	STC2222	1.0 §	200 Ø	§J	20	10	150	10	150	2.0m§	3.0Ø	10	10	50 #		150m	1.0uØ	D	MD21	Ø
48	STC2223	1.0 §	200 Ø	§J	20	10	200	10	200	2.0m§	3.0Ø	10	10	50 #		150m	1.0uØ	D	MD21	Ø
49	STC2224	1.0	200 Ø	§J	25	10	80	10	80	2.0m§	3.0Ø	15	10	50 #		100m	6.0uØ	D	MD21	Ø
50	STC2225	1.0	200 Ø	§J	25	10	100	10	100	2.0m§	3.0Ø	15	10	50 #		100m	6.0uØ	D	MD21	Ø
51	STC2226	1.0	200 Ø	§J	25	10	150	10	150	2.0m§	3.0Ø	15	10	50 #		100m	6.0uØ	D	MD21	Ø
52	STC2227	1.0	200 Ø	§J	25	10	200	10	200	2.0m§	3.0Ø	15	10	50 #		100m	6.0uØ	D	MD21	Ø
53	STC2228	1.0 §	200 Ø	§J	30	10	80	10	80	2.0m§	3.0Ø	20	10	40 #		80m	6.0uØ	D	MD21	Ø
54	STC2229	1.0 §	200 Ø	§J	30	10	100	10	100	2.0m§	3.0Ø	20	10	40 #		80m	6.0uØ	D	MD21	Ø
55	STC2230	1.0 §	200 Ø	§J	30	10	150	10	150	2.0m§	3.0Ø	20	10	40 #		80m	6.0uØ	D	MD21	Ø
56	STC2231	1.0 §	200 Ø	§J	30	10	200	10	200	2.0m§	3.0Ø	20	10	40 #		80m	6.0uØ	D	MD21	
57	STC3706	1.0 §	200 Ø	§J	30	10	200	10	200	2.0m§	3.0Ø	20	10	40 #		80m	6.0uØ	D	MT18	
58	2N2815	1.1	200 Ø	§J	20		80		80		3.0Ø	10	10	50		150m		ME	MT18	
59	2N2816	1.1	200 Ø	§J	20		100		100		3.0Ø	10	10	50		150m		ME	MT18	
60	2N2817	1.1	200 Ø	§J	20		150		150		3.0Ø	10	10	50		150m		ME	MT18	
61	2N2818	1.1	200 Ø	§J	20		200		200		3.0Ø	10	10	50		150m		ME	MT18	
62	2N2819	1.1	200 Ø	§J	25		80		80		3.0Ø	15	10	50		100m		ME	MT18	
63	2N2820	1.1	200 Ø	§J	25		100		100		3.0Ø	15	10	50		100m		ME	MT18	
64	2N2821	1.1	200 Ø	§J	25		150		150		3.0Ø	15	10	50		100m		ME	MT18	
65	2N2822	1.1	200 Ø	§J	25		200		200		3.0Ø	15	10	50		100m		ME	MT18	
66	2N2823	1.1	200 Ø	§J	30		80		80		3.0Ø	20	10	40		60m		ME	MT18	
67	2N2824	1.1	200 Ø	§J	30		100		100		3.0Ø	20	10	40		60m		ME	MT18	
68	2N2825	1.1	200 Ø	§J	30		150		150		3.0Ø	20	10	40		550m		ME	MT18	
69	2N5301†	1.1	200 Ø	§J	30	7.5	40	5.0	40	1.0m	2.0Ø	15	15	60 #	2.0MΔ		1.0u		TO3	CØ
70	2N5302†	1.1	200 Ø	§J	30	7.5	60	5.0	60	1.0m	2.0Ø	15	15	60 #	2.0MΔ		1.0u		TO3	CØ
71	2N5303†	1.1	200 Ø	§J	20	7.5	80	5.0	80	1.0m	2.0Ø	10	15	60 #	2.0MΔ		1.0u		TO3	CØ
72	2N5498	1.1	200 Ø	§J	15	5.0	150	10	130	2.0m§	6.0Ø	15	10	50	1.0M§Δ	100m			MD4a	AØ
73	2N5629	1.1	200 Ø	§J	16	5.0	100	7.0	100	1.0m	2.0Ø	8.0	25	100 #	1.0M§Δ				TO3	CØ
74	2N5630	1.1	200 Ø	§J	16	5.0	120	7.0	120	1.0m	2.0Ø	8.0	20	80 #	1.0M§Δ				TO3	CØ
75	2N5631	1.1	200 Ø	§J	16	5.0	140	7.0	140	1.0m	2.0Ø	8.0	15	60 #	1.0M§Δ				TO3	CØ
76▼#	BDY57	1.1	150 Ø	§J	30	15	120	10	80	5.0m	4.0Ø	10	20	60	10M§Δ	140m	200nØ	ME	TO3	CØ
77▼#	BDY58	1.1	150 Ø	§J	30	15	160	10	125	5.0m	4.0Ø	10	20	60	10M§Δ	140m	200nØ	ME	TO3	CØ
78▼	MJ802	1.1	200 Ø	§J	30	7.5	100	4.0	90	1.0m	2.0Ø	7.5	25	100 #	2.0M§Δ				TO3	CØ
79	STC1094	1.1	200 Ø	§J	20	4.5	90	10	90	15m	4.0Ø	10	7.5			3.0		D	TO3	CØ
80	2N5241†	1.2 ☑	125 Ø	$J	5.0	20	400	5.0	400	500u#	5.0Ø	2.5	15	35	2.5M§Δ	500m			TO3	CØ
81	ST15010	1.2 §	125 Ø	§J	40	8.0	150	12	100	10uØ	5.0Ø	40	10		10M§Δ	60m		PE	TO63	
82	ST15043	1.2	125 Ø	§J	40		125	10	80	100u	10	10	20	120	10M	10m	2.0u	PE	TO63	
83	ST15044	1.2	125 Ø	§J	40		145	10	100	100u	10	10	20	120	10M	10m	2.0u	PE	TO63	
84	ST15045	1.2	125 Ø	§J	40		170	10	120	100u	10	10	20	120	10M	10m	2.0u	PE	TO63	
85	2N3429†	1.3 ☑	150 Ø	§C	5.0	3.0	50	25	50 ☑	2.0m#	2.0Ø	5.0	10	35	20kΔ	200m	5.0uØ		MT52	B
86	2N3430†	1.3 ☑	150 Ø	§C	5.0	3.0	100	25	100 ☑	2.0m#	2.0Ø	5.0	10	35	20kΔ	200m	5.0uØ		MT52	B
87	2N3431†	1.3 ☑	150 Ø	§C	5.0	3.0	150	25	150 ☑	2.0m#	2.0Ø	5.0	10	35	20kΔ	200m	5.0uØ		MT52	B
88	2N3432†	1.3 ☑	150 Ø	§C	5.0	3.0	200	25	200 ☑	2.0m#	2.0Ø	5.0	10	35	20kΔ	200m	5.0uØ		MT52	B
89	2N3433†	1.3 ☑	150 Ø	§C	5.0	3.0	250	25	250 ☑	2.0m#	2.0Ø	5.0	10	35	20kΔ	200m	5.0uØ		MT52	B
90	2N3434†	1.3 ☑	150 Ø	§C	5.0	3.0	300	25	300 ☑	2.0m#	2.0Ø	5.0	10	35	20kΔ	200m	5.0uØ		MT52	B
91♦	2N3902†	1.3 §	100 Ø	§J	2.5	1.0	400 †	5.0†	400	250u#	5.0Ø	1.0	30	90	40kΔ	1.0	800n		TO3	CØ
92	JAN2N3902†	1.3 §	100 Ø	§A	3.5	2.0	400	5.0	400	250uΔ	5.0Ø	10	30	90	2.8M§Δ	800m	800nØ		TO3	CØ
93	2N5157†	1.3 §	100 Ø	§J	3.5	2.0	700	6.0	500	500u#	5.0Ø	1.0	30	90	2.8M§Δ	710m	800nØ		TO3	CØ
94	153-04†	1.3	200 Ø	§J	7.5	3.0	65	25	40	10m#	4.0Ø	1.5	30 Ø			870m	3.0uØ	F	MT52	
95	153-06†	1.3	200 Ø	§J	7.5	3.0	85	25	60	10m#	4.0Ø	1.5	30 Ø			870m	3.0uØ	F	MT52	
96	153-08†	1.3	200 Ø	§J	7.5	3.0	105	25	80	10m#	4.0Ø	1.5	30 Ø			870m	3.0uØ	F	MT52	
97	153-10†	1.3	200 Ø	§J	7.5	3.0	125	25	100	10m#	4.0Ø	1.5	30 Ø			870m	3.0uØ	F	MT52	
98	153-12†	1.3	200 Ø	§J	7.5	3.0	145	25	120	10m#	4.0Ø	1.5	30 Ø			870m	3.0uØ	F	MT52	
99	153-14†	1.3	200 Ø	§J	7.5	3.0	165	25	140	10m#	4.0Ø	1.5	30 Ø			870m	3.0uØ	F	MT52	
100	153-16†	1.3	200 Ø	§J	7.5	3.0	185	25	160	10m#	4.0Ø	1.5	30 Ø			870m	3.0uØ	F	MT52	
101	153-18†	1.3	200 Ø	§J	7.5	3.0	205	25	180	10m#	4.0Ø	1.5	30 Ø			870m	3.0uØ	F	MT52	
102	153-20†	1.3	200 Ø	§J	7.5	3.0	225	25	200	10m#	4.0Ø	1.5	30 Ø			870m	3.0uØ	F	MT52	
103	153-22†	1.3	200 Ø	§A	7.5	3.0	245	25	220	10m#	4.0Ø	1.5	30 Ø			870m	3.0uØ	F	MT52	
104	153-24†	1.3	200 Ø	§A	7.5	3.0	265	25	240	10m#	4.0Ø	1.5	30 Ø			870m	3.0uØ	F	MT52	
105	153-26†	1.3	200 Ø	§J	7.5	3.0	285	25	260	10m#	4.0Ø	1.5	30 Ø			870m	3.0uØ	F	MT52	
106	153-28†	1.3	200 Ø	§J	7.5	3.0	305	25	280	10m#	4.0Ø	1.5	30 Ø			870m	3.0uØ	F	MT52	
107	154-04†	1.3	200 Ø	§J	7.5	3.0	65	25	40	10m#	4.0Ø	1.5	42 Ø			830m	3.0uØ	F	MT52	
108	154-06†	1.3	200 Ø	§J	7.5	3.0	85	25	60	10m#	4.0Ø	1.5	42 Ø			830m	3.0uØ	F	MT52	
109	154-08†	1.3	200 Ø§	J	7.5	3.0	105	25	80	10m#	4.0Ø	1.5	42 Ø			.83	3.0uØ	F	MT52	
110	154-10†	1.3	200 Ø	§J	7.5	3.0	125	25	100	10m#	4.0Ø	1.5	42 Ø			830m	3.0uØ	F	MT52	

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AEXMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CONFIG
1	154-12†	1.3	200 Ø	§J	7.5	3.0	145	25	120	10m#	4.0Ø	1.5	42 Ø			830m	3.0uØ	F	MT52	
2	154-14†	1.3	200 Ø	§J	7.5	3.0	165	25	140	10m#	4.0Ø	1.5	42 Ø			830m	3.0uØ	F	MT52	
3	154-16†	1.3	200 Ø	§J	7.5	3.0	185	25	160	10m#	4.0Ø	1.5	42 Ø			830m	3.0uØ	F	MT52	
4	154-18†	1.3	200 Ø	§J	7.5	3.0	205	25	180	10m#	4.0Ø	1.5	42 Ø			830m	3.0uØ	F	MT52	
5	154-20†	1.3	200 Ø	§J	7.5	3.0	225	25	200	10m#	4.0Ø	1.5	42 Ø			830m	3.0uØ	F	MT52	
6	154-22†	1.3	200 Ø	§A	7.5	3.0	245	25	220	10m#	4.0Ø	1.5	42 Ø			830m	3.0uØ	F	MT52	
7	154-24†	1.3	200 Ø	§A	7.5	3.0	265	25	240	10m#	4.0Ø	1.5	42 Ø			830m	3.0uØ	F	MT52	
8	154-26†	1.3	200 Ø	§J	7.5	3.0	285	25	260	10m#	4.0Ø	1.5	42 Ø			830m	3.0uØ	F	MT52	
9	154-28†	1.3	200 Ø	§J	7.5	3.0	305	25	280	10m#	4.0Ø	1.5	42 Ø			830m	3.0uØ	F	MT52	
10♦	DTS103†	1.3	125 Ø	§J	15	5.0	80	5.0	60	250uΔ	1.5Ø	5.0	20	55	4.0MsΔ	180m	550n	DM	TO3	CØ
11♦	DTS104†	1.3	125 Ø	§J	15	5.0	80	5.0	60	250uΔ	1.5Ø	5.0	50	120	4.0MsΔ	150m	550n	DM	TO3	CØ
12♦	DTS105†	1.3	125 Ø	§J	15	5.0	100	5.0	80	250uΔ	1.5Ø	5.0	20	55	4.0MsΔ	180m	550n	DM	TO3	CØ
13♦	DTS106†	1.3	125 Ø	§J	15	5.0	110	5.0	90	250uΔ	1.5Ø	5.0	20	55	4.0MsΔ	180m	550n	DM	TO3	CØ
14♦	DTS107†	1.3	125 Ø	§J	15	5.0	120	5.0	100	250uΔ	1.5Ø	5.0	20	55	4.0MsΔ	180m	550n	DM	TO3	CØ
15	DTS402	1.3	100 Ø	§J	3.5	2.0		5.0	400	500uΔ					4.0MsΔ		1.9u#	DΔ	TO3	AØ
16	DTS410†	1.3	80 Ø	§J	3.5	2.0	200	5.0	200	500u#†	5.0Ø	1.0	30	90	4.0Ms	800m	300nØ	ME	TO3	CØ
17	DTS411†	1.3	100 Ø	§J	3.5	2.0	300	5.0	300	500u#†	5.0Ø	1.0	30	90	5.0Ms	800m	300nØ	ME	TO3	CØ
18	DTS423†	1.3	100 Ø	§J	3.5	2.0	400	5.0	400	500u#†	5.0Ø	1.0	30	90	5.0Ms	800m	300nØ	ME	TO3	CØ
19	DTS423M†	1.3	100 Ø	§J	3.5	2.0	400	5.0	400	250uΔ	5.0Ø	1.0	30	90	3.0MsΔ	800m	800nØ	D	TO3	CØ
20	DTS424†	1.3	100 Ø	§J	3.5	2.0		5.0	500	250uΔ	5.0Ø	1.0	30	90	4.0Ms	300m▼	300n	D	TO3	AØ
21	DTS425†	1.3	100 Ø	§J	3.5	2.0		5.0	500	250uΔ	5.0Ø	1.0	30	90	4.0Ms	300m▼	300n	D	TO3	AØ
22	ST15006	1.3 $	125 Ø§	J	40	8.0	100	12	60	.01m	5.0Ø	40	10		10MsΔ	.06		PE	TO63	
23	2N1015†	1.4 *	150 Ø	§J	7.5	5.0		25	30	20m#†	4.0Ø	2.0	10		20k		6.0uØ		MT1	
24	2N1015A†	1.4 *	150 Ø	§J	7.5	5.0		25	60	20m#†	4.0Ø	2.0	10		20k		6.0uØ		MT1	
25	2N1015B†	1.4 *	150 Ø	§J	7.5	5.0		25	100	20m#†	4.0Ø	2.0	10		20k		6.0uØ		MT1	
26	2N1015C†	1.4 *	150 Ø	§J	7.5	5.0		25	150	20m#†	4.0Ø	2.0	10		20k		6.0uØ		MT1	
27	2N1015D†	1.4 *	150 Ø	§J	7.5	5.0		25	200	20m#†	4.0Ø	2.0	10		20k		6.0uØ		MT1	
28	2N1015E†	1.4 *	150 Ø	§J	7.5	5.0		25	250	20m#†	4.0Ø	2.0	10		20k		6.0uØ		MT1	
29	2N1015F†	1.4 *	150 Ø	§J	7.5	5.0		25	300	20m#†	4.0Ø	2.0	10		20k		6.0uØ		MT1	
30	2N1016†	1.4 *	150 Ø	§J	7.5	5.0		25	30	20m#†	4.0Ø	5.0	10		20k		6.0uØ		MT1	
31	2N1016A†	1.4 *	150 Ø	§J	7.5	5.0		25	60	20m#†	4.0Ø	5.0	10		20k		6.0uØ		MT1	
32	2N1016B†	1.4 *	150 Ø	§J	7.5	5.0		25	100	20m#†	4.0Ø	5.0	10		20k		6.0uØ		MT1	BØ
33	JAN2N1016B	1.4 *	150 Ø	§J	7.5		100	25	100	1.0m	4.0Ø	2.0	20	80	20kΔ	500m	10uØ	Δ	MT1	BØ
34	2N1016C†	1.4 *	150 Ø	§J	7.5	5.0		25	150	20m#†	4.0Ø	5.0	10		20k		6.0uØ		MT1	BØ
35	JAN2N1016C	1.4 *	150 Ø	§J	7.5		150	25	150	1.0m	4.0Ø	2.0	20	80	20kΔ	500m	10uØ	Δ	MT1	BØ
36	2N1016D†	1.4 *	150 Ø	§J	7.5	5.0		25	200	20m#†	4.0Ø	5.0	10		20k		6.0uØ		MT1	BØ
37	JAN2N1016D	1.4 *	150 Ø	§J	7.5		200	25	200	1.0m	4.0Ø	2.0	20	80	20kΔ	500m	10uØ	Δ	MT1	BØ
38	2N1016E†	1.4 *	150 Ø	§J	7.5	5.0		25	250	20m#†	4.0Ø	5.0	10		20k		6.0uØ		MT1	BØ
39	2N1016F†	1.4 *	150 Ø	§J	7.5	5.0		25	300	20m#†	4.0Ø	5.0	10		20k		6.0uØ		MT1	BØ
40	2N2580†	1.4 *	150 Ø	§C	5.0	1.0	400	5.0	400	5.0m#	5.0Ø	5.0	10	40	30kΔ	140m	6.0uØ		TO36	CØ
41	2N2580M†	1.4	150 Ø	§J	10	3.0	400	5.0	400	5.0m	5.0Ø	5.0	10	40	2.0MsΔ	140m	1.5uØ	D	TO36	CØ
42	2N2581†	1.4 *	150 Ø	§C	10	2.0	400	5.0	400	5.0m#	5.0Ø	5.0	25	65	30kΔ	100m	6.0uØ		TO36	CØ
43	2N2582†	1.4 *	150 Ø	§C	5.0	1.0	500	5.0	500	5.0m#	5.0Ø	5.0	10	40	30kΔ	140m	6.0uØ		TO36	CØ
44	2N2583	1.4 *	150 Ø	§C	10	2.0	500	5.0	500	5.0m#	5.0Ø	5.0	25	65	30kΔ	100m	6.0uØ		TO36	CØ
45	2N2584†	1.4 *	150 Ø	§A	5.0	1.0	600	5.0	600	5.0m#	5.0Ø	5.0	10	40	30kΔ	140m	6.0uØ		TO36	CØ
46	2N2585†	1.4 *	150 Ø	§A	10	2.0	600	5.0	600	5.0m#	5.0Ø	5.0	25	65	30kΔ	1.0	6.0uØ		TO36	CØ
47	2N3079†	1.4 *	150 Ø	§C	5.0	1.0	200	5.0	200	5.0m#	2.0Ø	5.0	7.0	40	30kΔ	140m			TO36	CØ
48	2N3080†	1.4 *	150 Ø	§C	5.0	1.0	300	5.0	300	5.0m#	2.0Ø	5.0	7.0	40	30kΔ	140m			TO36	CØ
49	2N5560†	1.4 $	150 Ø	§J	30	10	175	8.0	120 #		2.0Ø	15	30	90	40MsΔ	50m	1.0uØ		TO63	AØ
50	151-04†	1.4	100 Ø	§J	6.0	3.0	65	25	40	10m#	4.0Ø	1.5	22 Ø			870m	7.0uØØ☑	F	MT1	
51	151-06†	1.4	100 Ø	§J	6.0	3.0	85	25	60	10m#	4.0Ø	1.5	22 Ø			870m	7.0uØØ☑	F	MT1	
52	151-08†	1.4	100 Ø	§J	6.0	3.0	105	25	80	10m#	4.0Ø	1.5	22 Ø			870m	7.0uØØ☑	F	MT1	
53	151-10†	1.4	100 Ø	§J	6.0	3.0	125	25	100	10m#	4.0Ø	1.5	22 Ø			870m	7.0uØØ☑	F	MT1	
54	151-12†	1.4	100 Ø	§J	6.0	3.0	145	25	120	10m#	4.0Ø	1.5	22 Ø			870m	7.0uØØ☑	F	MT1	
55	151-14†	1.4	100 Ø	§J	6.0	3.0	165	25	140	10m#	4.0Ø	1.5	22 Ø			870m	7.0uØØ☑	F	MT1	
56	151-16†	1.4	100 Ø	§J	6.0	3.0	185	25	160	10m#	4.0Ø	1.5	22 Ø			870m	7.0uØØ☑	F	MT1	
57	151-18†	1.4	100 Ø	§J	6.0	3.0	205	25	180	10m#	4.0Ø	1.5	22 Ø			870m	7.0uØØ☑	F	MT1	
58	151-20†	1.4	100 Ø	§J	6.0	3.0	225	25	200	10m#	4.0Ø	1.5	22 Ø			870m	7.0uØØ☑	F	MT1	
59	151-22†	1.4	100 Ø	§J	6.0	3.0	245	25	220	10m#	4.0Ø	1.5	22 Ø			870m	7.0uØØ☑	F	MT1	
60	151-24†	1.4	100 Ø	§J	6.0	3.0	265	25	240	10m#	4.0Ø	1.5	22 Ø			870m	7.0uØØ☑	F	MT1	
61	151-26†	1.4	100 Ø	§J	6.0	3.0	285	25	260	10m#	4.0Ø	1.5	22 Ø			870m	7.0uØØ☑	F	MT1	
62	151-28†	1.4	100 Ø	§J	6.0	3.0	305	25	280	10m#	4.0Ø	1.5	22 Ø			870m	7.0uØØ☑	F	MT1	A
63	152-04†	1.4	100 Ø	§J	6.0	3.0	65	25	40	10m#	4.0Ø	1.5	37 Ø			830m	7.0uØØ☑	F	MT1	A
64	152-06†	1.4	100 Ø	§J	6.0	3.0	85	25	60	10m#	4.0Ø	1.5	37 Ø			830m	7.0uØØ☑	F	MT1	
65	152-08†	1.4	100 Ø	§J	6.0	3.0	105	25	80	10m#	4.0Ø	1.5	37 Ø			830m	7.0uØØ☑	F	MT1	
66	152-10†	1.4	100 Ø	§J	6.0	3.0	125	25	100	10m#	4.0Ø	1.5	37 Ø			830m	7.0uØØ☑	F	MT1	
67	152-12†	1.4	100 Ø	§J	6.0	3.0	145	25	120	10m#	4.0Ø	1.5	37 Ø			830m	7.0uØØ☑	F	MT1	
68	152-14†	1.4	100 Ø	§J	6.0	3.0	165	25	140	10m#	4.0Ø	1.5	37 Ø			830m	7.0uØØ☑	F	MT1	
69	152-16†	1.4	100 Ø	§J	6.0	3.0	185	25	160	10m#	4.0Ø	1.5	37 Ø			830m	7.0uØØ☑	F	MT1	
70	152-18†	1.4	100 Ø	§J	6.0	3.0	205	25	180	10m#	4.0Ø	1.5	37 Ø			830m	7.0uØØ☑	F	MT1	
71	152-20†	1.4	100 Ø	§J	6.0	3.0	225	25	200	10m#	4.0Ø	1.5	37 Ø			830m	7.0uØØ☑	F	MT1	
72	152-22†	1.4	100 Ø	§J	6.0	3.0	245	25	220	10m#	4.0Ø	1.5	37 Ø			830m	7.0uØØ☑	F	MT1	
73	152-24†	1.4	100 Ø	§J	6.0	3.0	265	25	240	10m#	4.0Ø	1.5	37 Ø			830m	7.0uØØ☑	F	MT1	
74	152-26†	1.4	100 Ø	§J	6.0	3.0	285	25	260	10m#	4.0Ø	1.5	37 Ø			830m	7.0uØØ☑	F	MT1	A
75	152-28†	1.4	100 Ø	§J	6.0	3.0	305	25	280	10m#	4.0Ø	1.5	37 Ø			830m	7.0uØØ☑	F	MT1	A
76	DTS430†	1.4	125 Ø	§J	5.0	2.0	400	5.0	400	5.0m#	5.0Ø	2.5	15	45	4.0Ms	360m	400n	D	TO3	CØ
77	DTS431†	1.4	125 Ø	§J	5.0	2.0	400	5.0	400	5.0m#	5.0Ø	2.5	15	35	4.0Ms	280m	400n	D	TO3	CØ
78	DTS431M†	1.4	125 Ø	§J	5.0	2.0	400	5.0	400	5.0m#	5.0Ø	2.5	15	35	4.0Ms	300m	800nØØ☑	D	TO3	CØ
79	STC1015	1.4	150 Ø	§J	7.5	5.0	30	10	30	10m	4.0Ø	2.0	10		2.5Mt	750m	900n	D	MT1	
80	STC1015A	1.4	150 Ø	§J	7.5	5.0	60	10	60	10m	4.0Ø	2.0	10		2.5Mt	750m	900n	D	MT1	
81	STC1015B	1.4	150 Ø	§J	7.5	5.0	100	10	100	10m	4.0Ø	2.0	10		2.5Mt	750m	900n	D	MT1	
82	STC1015C	1.4	150 Ø	§J	7.5	5.0	150	10	150		4.0Ø	2.0	10		2.5Mt	750m	900n	D	MT1	
83	STC1015D	1.4	150 Ø	§J	7.5	5.0	200	10	200		4.0Ø	2.0	10		2.5Mt	750m	900n	D	MT1	
84	STC1015E	1.4	150 Ø	§J	7.5	5.0	250	10	250		4.0Ø	5.0	10		2.5Mt	500m	900n	D	MT1	
85	STC1016	1.4	150 Ø	§J	7.5	5.0	30	10	30		4.0Ø	5.0	10		2.5Mt	500m	900n	D	MT1	
86	STC1016A	1.4	150 Ø	§J	7.5	5.0	60	10	60		4.0Ø	5.0	10		2.5Mt	500m	900n	D	MT1	
87	STC1016B	1.4	150 Ø	§J	7.5	5.0	100	10	100		4.0Ø	5.0	10		2.5Mt	500m	900n	D	MT1	
88	STC1016C	1.4	150 Ø	§J	7.5	5.0	150	10	150		4.0Ø	5.0	10		2.5Mt	500m	900n	D	MT1	
89	STC1016D	1.4	150 Ø	§J	7.5	5.0	200	10	200		4.0Ø	5.0	10		2.5Mt	500m	900n	D	MT1	
90	STC1016E	1.4	150 Ø	§J	7.5	5.0	250	10	250		4.0Ø	5.0	10		2.5Mt	500m	900n	D	MT1	
91	STC1400	1.4	150 Ø	§J	5.0		60	6.0	40	1.0m	4.0Ø	2.0	15	60	2.5Mt	1.5	900n	D	MT1	
92▼#	2SD246	1.5	16 Ø	♦J	4.5 #	3.5 #	1.5k	5.0	1.5kØ	1.0m	5.0Ø	4.0	2.0			2.2	1.0u#	ME	MD9a	CØ
93	1776-0440	1.5 $	150 $	§J	75 #	15	40	7.0	40 ☑	2.0m#	3.0Ø	40	15 #		20MsΔ		500nØ☑	EMΔ	TO63	
94	1776-0460	1.5 $	150 $	§J	75 #	15	40	7.0	40 ☑	2.0m#	3.0Ø	60	15 #		20MsΔ		600nØ☑	EMΔ	TO63	
95	1776-0640	1.5 $	150 $	§J	75 #	15	60	7.0	60 ☑	2.0m#	3.0Ø	40	15 #		20MsΔ		500nØ☑	EMΔ	TO63	
96	1776-0660	1.5 $	150 $	§J	75 #	15	60	7.0	60 ☑	2.0m#	3.0Ø	60	15 #		20MsΔ		600nØ☑	EMΔ	TO63	
97	1776-0840	1.5 $	150 $	§J	75 #	15	80	7.0	80 ☑	2.0m#	3.0Ø	40	15 #		20MsΔ		500nØ☑	EMΔ	TO63	
98	1776-0860	1.5 $	150 $	§J	75 #	15	80	7.0	80 ☑	2.0m#	3.0Ø	60	15 #		20MsΔ		600nØ☑	EMΔ	TO63	
99	1776-1040	1.5 $	150 $	§J	75 #	15	100	7.0	100 ☑	2.0m#	3.0Ø	40	15 #		20MsΔ		500nØ☑	EMΔ	TO63	
100	1776-1060	1.5 $	150 $	§J	75 #	15	100	7.0	100 ☑	2.0m#	3.0Ø	60	15 #		20MsΔ		600nØ☑	EMΔ	TO63	
101	1776-1240	1.5 $	150 $	§J	75 #	15	120	7.0	120 ☑	2.0m#	3.0Ø	40	15 #		20MsΔ		500nØ☑	EMΔ	TO63	
102	1776-1260	1.5 $	150 $	§J	75 #	15	120	7.0	120 ☑	2.0m#	3.0Ø	60	15 #		20MsΔ		600nØ☑	EMΔ	TO63	
103	1776-1440	1.5 $	150 $	§J	75 #	15	140	7.0	140 ☑	2.0m#	3.0Ø	40	15 #		20MsΔ		500nØ☑	EMΔ	TO63	
104	1776-1460	1.5 $	150 $	§J	75 #	15	140	7.0	140 ☑	2.0m#	3.0Ø	60	15 #		20MsΔ		600nØ☑	EMΔ	TO63	
105	1776-1640	1.5 $	150 $	§J	75 #	15	160	7.0	160 ☑	2.0m#	3.0Ø	40	15 #		20MsΔ		500nØ☑	EMΔ	TO63	
106▼#	BDY55	1.5	115 Ø	§J	15	7.0	100	7.0	60	700uΔ	4.0Ø	4.0	20	70	10MsΔ	250m	500nØ☑	ME	TO3	CØ
107▼#	BDY56	1.5	115 Ø	§J	15	7.0	180	7.0	120	500uΔ	4.0Ø	4.0	20	70	10MsΔ	250m	500nØ☑	ME	TO3	CØ
108	ST15013	1.5 $	125 Ø		40		100	12	60	.01mØ	5.0Ø	10	40	200	10MsΔ			PE	TO63	
109	ST15014	1.5 $	125 Ø		40		125	12	80	.01mØ	5.0Ø	10	40	200	10MsΔ			PE	TO63	
110	ST15015	1.5 $	125 Ø		40		150	12	100	.01mØ	5.0Ø	10	40	200	10MsΔ			PE	TO63	

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MAT EXP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CONFIG
1#	2SC431†	1.6	200 Ø	$J	30	10	150	4.0	100	50m	5.0Ø	10	10	30	400k	200m	1.0u	DM	MD18	
2#	2SC432†	1.6	200 Ø	$J	30	10	150	4.0	100	50m	5.0Ø	10	20	40 Ø	400k	200m	1.0u	DM	MD18	
3#	2SC433†	1.6	200 Ø	$J	30	10	200	4.0	140	20m	5.0Ø	10	10	30	400k	200m	1.0u	DM	MD18	
4#	2SC434†	1.6	200 Ø	$J	30	10	200	4.0	140	20m	5.0Ø	10	20	40 Ø	400k	200m	1.0u	DM	MD18	
5#	2SC435†	1.6	200 Ø	$J	30	10	300	4.0	200	5.0m	5.0Ø	10	10	30	400k	200m	1.0u	DM	MD18	
6#	2SC436†	1.6	200 Ø	$J	30	10	300	4.0	200	5.0m	5.0Ø	10	20	40 Ø	400k	200m	1.0u	DM	MD18	
7#	2SD41	1.6	200 Ø	$J	10		80	10	80	200u	5.0Ø	1.0	30	200				D	TO3	CØ
8#	2SD55	1.6	200 Ø	$J	20		100	10	55	10mØ	5.0Ø	10	12	48	1.0Mt			D	TO3	
9#	2SD113	1.6	200 Ø	$J	30	5.0	100	10	80	1.0mØ	5.0Ø	15	10	60	500kt			D	TO3	A
10#	2SD114	1.6	200 Ø	$J	30	5.0	70	10	50	1.0mØ	5.0Ø	15	10	60	500kt			D	TO3	A
11	SDT8601	1.6	280 Ø	§J	90	20	80	8.0		10uØ	5.0Ø	75	10 #		20M§			PL	TO68	
12	SDT8602	1.6	280 Ø	§J	90	20	100	8.0		10uØ	5.0Ø	75	10 #		20M§			PL	TO68	
13	SDT8603	1.6	280 Ø	§J	90	20	120	8.0		10uØ	5.0Ø	75	10 #		20M§			PL	TO68	
14	SDT8604	1.6	280 Ø	§J	90	20	140	8.0		10uØ	5.0Ø	75	10 #		20M§			PL	TO68	
15	2N5685	1.7	300 Ø	§J	50	15	60	5.0	60	2.0m	2.0Ø	25	15	60 #	2.0M§Δ				MD6d	CØ
16	2N5686	1.7	300 Ø	§J	50	15	80	5.0	80	2.0m	2.0Ø	25	15	60 #	2.0m§Δ				MD6d	CØ
17▼	MJ7200	1.7	300 Ø	§J	60	20	100	6.0	80	100u	510Ø	20	20	100 #	20M§Δ			Δ	MT69a	
18▼	MJ7201	1.7	300 Ø	§J	60	20	120	6.0	100	100u	5.0Ø	20	20	100 #	20M§Δ			Δ	MT69a	
19	2N1936	2.0 $	150 Ø	§J	20	10	125	6.0	60	10m#	10Ø	10	10 #	50 #	4.0M§	75m		ME	TO63	Ø
20	2N1937	2.0 $	150 Ø	§J	20	10	125	6.0	80	10m#	10Ø	10	10 #	50 #	4.0M§	75m		ME	TO63	AØ
21	2N2226	2.0 §	150 Ø	§C	10	1.0	50	15	50 Ø	20m#	6.0Ø	9.0	100	500	7.0kΔ	380m			MT1	AØ
22	2N2227	2.0 §	150 Ø	§C	10	1.0	100	15	100 Ø	20m#	6.0Ø	9.0	100	500	7.0kΔ	380m			MT1	AØ
23	2N2228	2.0 §	150 Ø	§C	10	1.0	150	15	150 Ø	20m#	6.0Ø	9.0	100	500	7.0kΔ	380m			MT1	AØ
24	2N2229	2.0 §	150 Ø	§C	10	1.0	200	15	200 Ø	20m#	6.0Ø	9.0	100	500	7.0kΔ	380m			MT1	AØ
25	2N2230	2.0 §	150 Ø	§C	10	1.0	50	15	50 Ø	20m#	6.0Ø	9.0	350		4.0kΔ	380m			MT1	AØ
26	2N2231	2.0 §	150 Ø	§C	10	1.0	100	15	100 Ø	20m#	6.0Ø	9.0	350		4.0kΔ	380m			MT1	AØ
27	2N2232	2.0 §	150 Ø	§C	10	1.0	150	15	150 Ø	20m#	6.0Ø	9.0	350		4.0kΔ	380m			MT1	AØ
28	2N2233	2.0 §	150 Ø	§C	10	1.0	200	15	200 Ø	20m#	6.0Ø	9.0	350		4.0kΔ	380m			MT1	AØ
29	2N2739†	2.0 §	200 Ø	§C	20	7.5	50	15	50 Ø	15m#	4.0Ø	10	10			150m	6.0uØ		MT1	B
30	2N2740†	2.0 §	200 Ø	§C	20	7.5	100	15	100 Ø	15m#	4.0Ø	10	10			150m	6.0uØ		MT1	B
31	2N2741†	2.0 §	200 Ø	§C	20	7.5	150	15	150 Ø	15m#	4.0Ø	10	10			150m	6.0uØ		MT1	B
32	2N2742†	2.0 §	200 Ø	§C	20	7.5	200	15	200 Ø	15m#	4.0Ø	10	10			150m	6.0uØ		MT1	B
33♦	2N2743†	2.0 §	200 Ø	§C	20	7.5	250		250		4.0Ø	10	10				6.0uØ		MT1b	B
34♦	2N2744†	2.0 §	200 Ø	§C	20	7.5	300		300		4.0Ø	10	10				6.0uØ		MT1b	B
35	2N2745†	2.0 §	200 Ø	§C	20	7.5	50	15	50 Ø	15m#	4.0Ø	15	10			100m	6.0uØ		MT1	B
36	2N2746†	2.0 §	200 Ø	§C	20	7.5	100	15	100 Ø	15m#	4.0Ø	15	10			100m	6.0uØ		MT1	B
37	2N2747†	2.0 §	200 Ø	§C	20	7.5	150	15	150 Ø	15m#	4.0Ø	15	10			100m	6.0uØ		MT1	B
38	2N2748†	2.0 §	200 Ø	§C	20	7.5	200	15	200 Ø	15m#	4.0Ø	15	10			100m	6.0uØ		MT1	B
39	2N2751†	2.0 §	200 Ø	§C	20	7.5	50	15	50 Ø	15m#	4.0Ø	20	10			75m	7.0uØ		MT1	B
40	2N2752†	2.0 §	200 Ø	§C	20	7.5	100	15	100 Ø	15m#	4.0Ø	20	10			75m	7.0uØ		MT1	B
41	2N2753†	2.0 §	200 Ø	§C	20	7.5	150	15	150 Ø	15m#	4.0Ø	20	10			75m	7.0uØ		MT1	B
42	2N2754†	2.0 §	200 Ø	§C	20	7.5	200	15	200 Ø	15m#	4.0Ø	20	10			75m	7.0uØ		MT1	B
43♦	2N2755†	2.0 §	200 Ø	§C	20	7.5	250		250		4.0Ø	20	10				7.0uØ		MT1b	B
44♦	2N2756†	2.0 §	200 Ø	§C	20	7.5	300		300		4.0Ø	20	10				7.0uØ		MT1b	B
45	2N2757†	2.0 §	200 Ø	§C	30	7.5	50	15	50 Ø	15m#	4.0Ø	10	10			150m	6.0uØ		MT33	A
46	2N2758†	2.0 §	200 Ø	§C	30	7.5	100	15	100 Ø	15m#	4.0Ø	10	10			150m	6.0uØ		MT33	A
47	2N2759†	2.0 §	200 Ø	§C	30	7.5	150	15	150 Ø	15m#	4.0Ø	10	10			150m	6.0uØ		MT33	A
48	2N2760†	2.0 §	200 Ø	§C	30	7.5	200	15	200 Ø	15m#	4.0Ø	10	10			150m	6.0uØ		MT33	A
49	2N2761†	2.0 §	200 Ø	§C	30	7.5	250	15	250 Ø	15m#	4.0Ø	10	10			150m	6.0uØ		MT33	A
50♦	2N2762†	2.0 §	200 Ø	§C	30	7.5	300		300 Ø	15m#	4.0Ø	10	10				6.0uØ		MT33	A
51	2N2763†	2.0 §	200 Ø	§C	30	7.5	50	15	50 Ø	15m#	4.0Ø	15	10			100m	6.0uØ		MT33	A
52	2N2764†	2.0 §	200 Ø	§C	30	7.5	100	15	100 Ø	15m#	4.0Ø	15	10			100m	6.0uØ		MT33	A
53	2N2765†	2.0 §	200 Ø	§C	30	7.5	150	15	150 Ø	15m#	4.0Ø	15	10			100m	6.0uØ		MT33	A
54	2N2766†	2.0 §	200 Ø	§C	30	7.5	200	15	200 Ø	15m#	4.0Ø	15	10			100m	6.0uØ		MT33	A
55♦	2N2767†	2.0 §	200 Ø	§C	30	7.5	250		250 Ø	15m#	4.0Ø	15	10				6.0uØ		MT33	A
56♦	2N2768†	2.0 §	200 Ø	§C	30	7.5	300		300 Ø	15m#	4.0Ø	15	10				6.0uØ		MT33	A
57	2N2769†	2.0 §	200 Ø	§C	30	7.5	50	15	50 Ø	15m#	4.0Ø	20	10			75m	7.0uØ		MT33	A
58	2N2770†	2.0 §	200 Ø	§C	30	7.5	100	15	100 Ø	15m#	4.0Ø	20	10			75m	7.0uØ		MT33	A
59	2N2771†	2.0 §	200 Ø	§C	30	7.5	150	15	150 Ø	15m#	4.0Ø	20	10			75m	7.0uØ		MT33	A
60	2N2772†	2.0 §	200 Ø	§C	30	7.5	200	15	200 Ø	15m#	4.0Ø	20	10			75m	7.0uØ		MT33	A
61♦	2N2773†	2.0 §	200 Ø	§C	30	7.5	250		250 Ø	15m#	4.0Ø	20	10				7.0uØ		MT33	A
62♦	2N2774†	2.0 §	200 Ø	§C	30	7.5	300		300 Ø	15m#	4.0Ø	20	10				7.0uØ		MT33	A
63	2N2775†	2.0 §	200 Ø	§C	30	7.5	50	15	50 Ø	15m#	4.0Ø	25	10			60m	8.0uØ		MT33	A
64	2N2776†	2.0 §	200 Ø	§C	30	7.5	100	15	100 Ø	15m#	4.0Ø	25	10			60m	8.0uØ		MT33	A
65	2N2777†	2.0 §	200 Ø	§C	30	7.5	150	15	150 Ø	15m#	4.0Ø	25	10			60m	8.0uØ		MT33	A
66	2N2778†	2.0 §	200 Ø	§C	30	7.5	200	15	200 Ø	15m#	4.0Ø	25	10			60m	8.0uØ		MT33	A
67♦	2N2779†	2.0 §	200 Ø	§C	30	7.5	250		250 Ø	15m#	4.0Ø	25	10				8.0uØ		MT33	A
68♦	2N2780†	2.0 §	200 Ø	§C	30	7.5	300		300 Ø	15m#	4.0Ø	25	10				8.0uØ		MT33	A
69	2N3149	2.0	300 Ø	§J	70	15	80	10	80	2.0m#	3.0Ø	50	10 #		100k§Δ	30m	10uØØ	D	MT49	Ø
70	2N3150	2.0	300 Ø	§J	70	15	100	10	100	2.0m#	3.0Ø	50	10 #		100k§Δ	30m	10uØØ	D	MT49	Ø
71	2N3151	2.0	300 Ø	§J	70	15	150	10	150	2.0m#	3.0Ø	50	10 #		100k§Δ	30m	10uØØ	D	MT49	Ø
72	2N3470	2.0 §Ø	150 Ø	§C	10	1.0	50	15	50	20m#	6.0Ø	9.0	100	500	7.0kΔ	390m		F	MT33	
73	2N3471	2.0 §Ø	150 Ø	§C	10	1.0	100	15	100	20m#	6.0Ø	9.0	100	500	7.0kΔ	390m		F	MT33	
74	2N3472	2.0 §Ø	150 Ø	§C	10	1.0	150	15	150	20m#	6.0Ø	9.0	100	500	7.0kΔ	390m		F	MT33	
75	2N3473	2.0 §Ø	150 Ø	§C	10	1.0	200	15	200	20m#	6.0Ø	9.0	100	500	7.0kΔ	390m		F	MT33	
76	2N3474	2.0 §Ø	150 Ø	§C	10	1.0	50	15	50	20m#	6.0Ø	9.0	350		4.0kΔ	390m		F	MT33	
77	2N3475	2.0 §Ø	150 Ø	§C	10	1.0	100	15	100	20m#	6.0Ø	9.0	350		4.0kΔ	390m		F	MT33	
78	2N3476	2.0 §Ø	150 Ø	§C	10	1.0	150	15	150	20m#	6.0Ø	9.0	350		4.0kΔ	390m		F	MT33	
79	2N3477	2.0 §Ø	150 Ø	§C	10	1.0	200	15	200	20m#	6.0Ø	9.0	350		4.0kΔ	390m		F	MT33	
80	2N3846†	2.0 $	4.0	§C	20	10	300	10	200	10m#	3.0Ø	5.0	40	200 #	10M§Δ	80m	4.0uØ		TO63	AØ
81	JAN2N3846†	2.0 Δ	4.0	§A	20		300		200 *	2.0m§	3.0Ø	10	12 #	60 #	10M§Δ		4.0uØØ		TO63	AØ
82	2N3847†	2.0 $	4.0	§C	20	10	400	10	300	10m#	3.0Ø	5.0	40	200 #	10m§Δ	80m	4.0uØ		TO63	AØ
83	JAN2N3847†	2.0 Δ	4.0	§A	20		400		300 *	2.0m§	3.0Ø	10	12 #	60 #	10M§Δ		4.0uØØ		TO63	AØ
84	2N3848†	2.0 $	4.0	§C	20	10	300	10	200	10m#	4.0Ø	5.0	40	200 #	10M§Δ	670m	4.0uØ		TO63	AØ
85	2N3849†	2.0 $	4.0	§C	20	10	400	10	300	10m#	4.0Ø	5.0	40	200 #	10m§Δ	670m	4.0uØ		TO63	AØ
86	2N4865†	2.0	350 Ø	§J	90	15	100	8.0	80	1.0uØ	5.0Ø	70	10	40 #	10M§Δ		2.0u	PL	MT69	
87	JAN2N4865†	2.0	350 Ø	§J	50		100	10	80	100u§	5.0Ø	70	10	40 #	10M§Δ		2.0uØØ		MT49a	AØ
88	2N4866†	2.0	350 Ø	§J	90	15	140	8.0	120	1.0uØ	5.0Ø	70	10	40 #	10M§Δ		2.0u	PL	MT69	
89	2N4950†	2.0 #	300 Ø	§C	70	15	80	10	60	2.0m§	3.0Ø	50	10 #		100k§Δ		9.5u		MT69	AØ
90	2N5250†	2.0	350 Ø	§J	90	15	125	10	100	1.0uØ	5.0Ø	70	10	40 #	10M§Δ		2.0u		MT69	AØ
91	JAN2N5250†	2.0	350 Ø	§J	50		125	10	100	100u§	5.0Ø	70	10	40 #	10M§Δ		2.0uØØ		MT49a	AØ
92	2N5251†	2.0	350 Ø	§J	90	15	180	10	150	1.0uØ	5.0Ø	70	10	40 #	10M§Δ		2.0u		MT69	AØ
93	JAN2N5251†	2.0	350 Ø	§J	50		180	10	150	100u§	5.0Ø	70	10	40 #	10M§Δ		2.0uØØ		MT49a	AØ
94	2N5489	2.0 #	300 Ø	§J	40	15	100	10	100	2.0m§	6.0Ø	40	15	50	500k§Δ	38m			TO114	AØ
95	2N5575	2.0	300	§J	80	20	70	8.0	50 Ø	5.0m*	4.0Ø	60	10	40 #	400k§Δ			HΔ	MD6	CØ
96	2N5576	2.0	300	§J	80	20	70	8.0	50 Ø	5.0m*	4.0Ø	60	10	40 #	400k§Δ			HΔ	MD37	CØ
97	2N5577	2.0	300	§J	80	20	70	8.0	50 Ø	5.0m*	4.0Ø	60	10	40 #	400k§Δ			HΔ	MD38	CØ
98	2N5578	2.0	300	§J	60	15	90	8.0	70 Ø	5.0m*	4.0Ø	40	10	40 #	400k§Δ			HΔ	MD6	CØ
99	2N5579	2.0	300	§J	60	15	90	8.0	70 Ø	5.0m*	4.0Ø	40	10	40 #	400k§Δ			HΔ	MD37	CØ
100	2N5580	2.0	300	§J	60	15	90	8.0	70 Ø	5.0m*	4.0Ø	40	10	40 #	400k§Δ			HΔ	MD38	CØ
101	163-04†	2.0 #	200 Ø	§J	20	7.5	55	15	40	30m#	4.0Ø	5.0	20 Ø			220m	6.0uØ	F	MT33	
102	163-06†	2.0 #	200 Ø	§J	20	7.5	75	15	60	30m#	4.0Ø	5.0	20 Ø			220m	6.0uØ	F	MT33	
103	163-08†	2.0 #	200 Ø	§J	20	7.5	95	15	80	30m#	4.0Ø	5.0	20 Ø			220m	6.0uØ	F	MT33	
104	163-10†	2.0 #	200 Ø	§J	20	7.5	115	15	100	30m#	4.0Ø	5.0	20 Ø			220m	6.0uØ	F	MT33	
105	163-12†	2.0 #	200 Ø	§J	20	7.5	135	15	120	30m#	4.0Ø	5.0	20 Ø			220m	6.0uØ	F	MT33	
106	163-14†	2.0 #	200 Ø	§J	20	7.5	155	15	140	30m#	4.0Ø	5.0	20 Ø			220m	6.0uØ	F	MT33	
107	163-16†	2.0 #	200 Ø	§J	20	7.5	175	15	160	30m#	4.0Ø	5.0	20 Ø			220m	6.0uØ	F	MT33	
108	163-18†	2.0 #	200 Ø	§J	20	7.5	195	15	180	30m#	4.0Ø	5.0	20 Ø			220m	6.0uØ	F	MT33	
109	163-20†	2.0 #	200 Ø	§J	20	7.5	215	15	200	30m#	4.0Ø	5.0	20 Ø			220m	6.0uØ	F	MT33	
110	163-22†	2.0 §	200 Ø	§J	20	7.5	235	15	220	30m#†	4.0Ø	5.0	20 Ø			220m	6.0uØ	F	MT33	AØ

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AEXMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CONFIG
1	163-24†	2.0 §	200 Ø	§J	20	7.5	255	15	240	30m#†	4.0Ø	5.0	20 Ø			220m	6.0uØ	F	MT33	AØ
2	163-26†	2.0 §	200 Ø	§J	20	7.5	275	15	260	30m#†	4.0Ø	5.0	20 Ø			220m	6.0uØ	F	MT33	AØ
3	163-28†	2.0 §	200 Ø	§J	20	7.5	295	15	280	30m#†	4.0Ø	5.0	20 Ø			220m	6.0uØ	F	MT33	AØ
4	164-04†	2.0 #	200 Ø	§J	20	7.5	55	15	40	30m#	4.0Ø	5.0	25			200m	6.0uØ	F	MT33	
5	164-06†	2.0 #	200 Ø	§J	20	7.5	75	15	60	30m#	4.0Ø	5.0	42 Ø			200m	6.0uØ	F	MT33	
6	164-08†	2.0 #	200 Ø	§J	20	7.5	95	15	80	30m#	4.0Ø	5.0	42 Ø			200m	6.0uØ	F	MT33	
7	164-10†	2.0 #	200 Ø	§J	20	7.5	115	15	100	30m#	4.0Ø	5.0	42 Ø			200m	6.0uØ	F	MT33	
8	164-12†	2.0 #	200 Ø	§J	20	7.5	135	15	120	30m#	4.0Ø	5.0	42 Ø			200m	6.0uØ	F	MT33	
9	164-14†	2.0 #	200 Ø	§J	20	7.5	155	15	140	30m#	4.0Ø	5.0	42 Ø			200m	6.0uØ	F	MT33	
10	164-16†	2.0 #	200 Ø	§J	20	7.5	175	15	160	30m#	4.0Ø	5.0	42 Ø			200m	6.0uØ	F	MT33	
11	164-18†	2.0 #	200 Ø	§J	20	7.5	195	15	180	30m#	4.0Ø	5.0	42 Ø			200m	6.0uØ	F	MT33	
12	164-20†	2.0 #	200 Ø	§J	20	7.5	215	15	200	30m#	4.0Ø	5.0	42 Ø			200m	6.0uØ	F	MT33	
13	164-22†	2.0 §	200 Ø	§J	20	7.5	235	15	220	30m#†	4.0Ø	5.0	42 Ø			200m	6.0uØ	F	MT33	AØ
14	164-24†	2.0 §	200 Ø	§J	20	7.5	255	15	240	30m#†	4.0Ø	5.0	42 Ø			200m	6.0uØ	F	MT33	AØ
15	164-26†	2.0 §	200 Ø	§J	20	7.5	275	15	260	30m#†	4.0Ø	5.0	42 Ø			200m	6.0uØ	F	MT33	AØ
16	164-28†	2.0 §	200 Ø	§J	20	7.5	295	15	280	30m#†	4.0Ø	5.0	42 Ø			200m	6.0uØ	F	MT33	AØ
17▼#	BDY23	2.0	85 Ø	§J	6.0	3.0	80	10	60	1.0m§	4.0Ø	2.0	15	180	10M§△	500m	500nØØ	ME	TO3	CØ
18▼#	BDY24	2.0	85 Ø	§J	6.0	3.0	120	10	90	1.0m§	4.0Ø	2.0	15	180	10M§△	300m	500nØØ	ME	TO3	CØ
19▼#	BDY25	2.0	85 Ø	§J	6.0	3.0	200	10	140	1.0m§	4.0Ø	2.0	15	180	10M§△	300m	500nØØ	ME	TO3	CØ
20▼#	BDY26	2.0	85 Ø	§J	6.0	3.0	300	10	180	1.0m§	4.0Ø	2.0	15	180	10M§△	300m	500nØØ	ME	TO3	CØ
21▼#	BDY27	2.0	85 Ø	§J	6.0	3.0	400	10	200	1.0m§	4.0Ø	2.0	15	180	10M§△	300m	500nØØ	ME	TO3	CØ
22▼#	BDY28	2.0	85 Ø	§J	6.0	3.0	500	10	250	1.0m§	4.0Ø	2.0	15	180	10M§△	300m	500nØØ	ME	TO3	CØ
23▼#	BU102	2.0 §	50 Ø	§J	7.0		400	5.0	150	10uØ§	5.0	1.0	30 †	110 †			1.0uØ	DPE	TO3	
24▼#	BU104	2.0	85 Ø	§J	7.0	3.0	400	10		10m	3.5Ø	5.0	10	50	10M§△	350m	600nØØ	ME	TO3	CØ
25	DPT121	2.0 §	150 Ø	§J	10	1.0	50	15	50	1.0m#†	6.0Ø	10	1.0k	2.0kØ	10k	350m	10u	F△	MT1	
26	DPT122	2.0 §	150 Ø	§J	10	1.0	100	15	100	1.0m#†	6.0Ø	10	1.0k	2.0kØ	10k	350m	10u	F△	MT1	
27	DPT123	2.0 §	150 Ø	§J	10	1.0	150	15	150	1.0m#†	6.0Ø	10	1.0k	2.0kØ	10k	350m	10u	F△	MT1	
28	DPT124	2.0 §	150 Ø	§J	10	1.0	200	15	200	1.0m#†	6.0Ø	10	1.0k	2.0kØ	10k	350m	10u	F△	MT1	
29	MHT8920	2.0	350 Ø	§J	90	20	80	8.0	60	10uØ	5.0Ø	75	10 #		20M§△			PL		
30	MHT8921	2.0	350 Ø	§J	90	20	100	8.0	80	10uØ	5.0Ø	75	10 #		20M§△			PL		
31	MHT8922	2.0	350 Ø	§J	90	20	120	8.0	100	10uØ	5.0Ø	75	10 #		20M§△			PL		
32	MHT8923	2.0	35 Ø	§J	90	20	140	8.0	120	10uØ	5.0Ø	75	10 #		20M§△			PL		
33	SDT8920	2.0	350		90	20	80	8.0	60	.01m	5.0	75	10		20M				MT49	
34	SDT8921	2.0	350		90	20	100	8.0	80	.01m	5.0	75	10		20M				MT49	
35	SDT8922	2.0	350		90	20	120	8.0	100	.01m	5.0	75	10		20M				MT49	
36	SDT8923	2.0	350		90	20	140	8.0	120	.01m	5.0	75	10		20M				MT49	
37	SDT8951	2.0	350 Ø	§J	60	15	200	8.0		10uØ	10Ø	40	10	40 #	20M§			PL	MT49a	
38	SDT8952	2.0	350 Ø	§J	60	15	225	8.0		10uØ	10Ø	40	10	40 #	20M§			PL	MT49a	
39	SDT8953	2.0	350 Ø	§J	60	15	250	8.0		10uØ	10Ø	40	10	40 #	20M§			PL	MT49a	
40	SDT8954	2.0	350 Ø	§J	60	15	275	8.0		10uØ	10Ø	40	10	40 #	20M§			PL	MT49a	
41	SDT8955	2.0	350 Ø	§J	60	15	300	8.0		10uØ	10Ø	40	10	40 #	20M§			PL	MT49a	
42	ST14010	2.0 $	200 Ø	§J	80	10	150	12	100	10u	5.0Ø	80	10		10M§△	30m		PE	TO63	
43	ST14011	2.0 $	200 Ø		80		100	12	60	.01mØ	5.0Ø	20	40	200	10M§△			PE	TO63	
44	ST14012	2.0 $	200 Ø		80		125	12	80	.01mØ	5.0Ø	20	40	200	10M§△			PE	TO63	
45	ST14013	2.0 $	200 Ø		80		150	12	100	.01mØ	5.0Ø	20	40	200	10M§△			PE	TO63	
46	ST14026	2.0	200 Ø	§J	80		125	10	80	100u	10	30	30	120	10M	38m	2.0u	PE	TO63	
47	ST14027	2.0	200 Ø	§J	80		145	10	100	100u	10	30	30	120	10M	38m	2.0u	PE	TO63	
48	ST14028	2.0	200 Ø	§J	80		170	10	120	100u	10	30	30	120	10M	38m	2.0u	PE	TO63	
49	ST14030	2.0	200	§J	60		100	10	100	.10m	10	30	20	120	10M	.04	2.0u	PE	TO63	
50	ST14031	2.0	200 Ø	§J	60		80	10	80	100u	10	30	20	120	10M	40m	2.0u	PE	TO63	
51	ST14032	2.0	200	§J	60		120	10	120	.10m	10	30	20	120	10M	.04	2.0u	PE	TO63	
52	ST14060	2.0 $	200 Ø	§J	80	10	100	12	60	10u	5.0Ø	80	10		10M§△	30m		PE	TO63	
53	ST14080	2.0 $	200 Ø	§J	80	10	125	12	80	10u	5.0Ø	80	10		10M§△	30m		PE	TO63	
54	STC2103	2.0 #	300 Ø	§J	65	15	80	10	80		6.0Ø	45	10			50m		D	MT49	
55	STC2104	2.0 #	300 Ø	§J	65	15	100	10	100		6.0Ø	45	10			50m		D	MT49	
56	STC2105	2.0 #	300 Ø	§J	65	15	150	10	150		6.0Ø	45	10			50m		D	MT49	
57	STC2106	2.0	300 Ø	§J	60		80	10	80		6.0Ø	40	10			50m		D	MT49	
58	STC2107	2.0	300 Ø	§J	60		100	10	100		6.0Ø	40	10			50m		D	MT49	
59	STC2108	2.0	300 Ø	§J	60		150	10	150		6.0Ø	40	10			50m		D	MT49	
60	STC3722	2.0 §	200 Ø	§J	20	7.5	55	10	40		4.0Ø	5.0	15 #			220m		D	MT18	
61	STC3723	2.0 §	200 Ø	§J	20	7.5	65	10	50		4.0Ø	5.0	15 #			220m		D	MT18	
62	STC3724	2.0 §	200 Ø	§J	20	7.5	75	10	60		4.0Ø	5.0	15 #			220m		D	MT18	
63	STC3725	2.0 §	200 Ø	§J	20	7.5	85	10	70		4.0Ø	5.0	15 #			220m		D	MT18	
64	STC3726	2.0 §	200 Ø	§J	20	7.5	95	10	80		4.0Ø	5.0	15 #			220m		D	MT18	
65	STC3727	2.0 §	200 Ø	§J	20	7.5	105	10	90		4.0Ø	5.0	15 #			220m		D	MT18	
66	STC3728	2.0 §	200 Ø	§J	20	7.5	115	10	100		4.0Ø	5.0	15 #			220m		D	MT18	
67	STC3729	2.0 §	200 Ø	§J	20	7.5	135	10	120		4.0Ø	5.0	15 #			220m		D	MT18	
68	STC3730	2.0 §	200 Ø	§J	20	7.5	155	10	140	30m#†	4.0Ø	5.0	15 #			220m		D	MT18	
69	STC3731	2.0 §	200 Ø	§J	20	7.5	175	10	160	30m#†	4.0Ø	5.0	15 #			220m		D	MT18	
70	STC3732	2.0 §	200 Ø	§J	20	7.5	195	10	180	30m#†	4.0Ø	5.0	15 #			220m		D	MT18	
71	STC3733	2.0 §	200 Ø	§J	20	7.5	215	10	200	30m#†	4.0Ø	5.0	15 #			220m		D	MT18	
72	STC3734	2.0 §	200 Ø	§J	20	7.5	55	10	40	30m#†	4.0Ø	5.0	25 #			200m		D	MT18	
73	STC3735	2.0 §	200 Ø	§J	20	7.5	65	10	50	30m#†	4.0Ø	5.0	25 #			200m		D	MT18	
74	STC3736	2.0 §	200 Ø	§J	20	7.5	75	10	60	30m#†	4.0Ø	5.0	25 #			200m		D	MT18	
75	STC3737	2.0 §	200 Ø	§J	20	7.5	85	10	70	30m#†	4.0Ø	5.0	25 #			200m		D	MT18	
76	STC3738	2.0 §	200 Ø	§J	20	7.5	95	10	80	30m#†	4.0Ø	5.0	25 #			200m		D	MT18	
77	STC3739	2.0 §	200 Ø	§J	20	7.5	105	10	90	30m#†	4.0Ø	5.0	25 #			200m		D	MT18	
78	STC3740	2.0 §	200 Ø	§J	20	7.5	115	10	100	30m#†	4.0Ø	5.0	25 #			200m		D	MT18	
79	STC3741	2.0 §	200 Ø	§J	20	7.5	135	10	120	30m#†	4.0Ø	5.0	25 #			200m		D	MT18	
80	STC3742	2.0 §	200	§J	20	7.5	155	10	140	30m#†	4.0Ø	5.0	25			200m		D		
81	STC3743	2.0 §	200	§J	20	7.5	175	10	160	30m#†	4.0Ø	5.0	25			200m		D		
82	STC3744	2.0 §	200	§J	20	7.5	195	10	180	30m#†	4.0Ø	5.0	25			200m		D		
83	STC3745	2.0 §	200	§J	20	7.5	215	10	200	30m#†	4.0Ø	5.0	25			200m		D		
84	2N1809†	2.1 ☑	250 Ø	§J	10	10	50	15	50 #	30m#†	4.0Ø	10	10			150m	20uØ		MT14	CØ
85	2N1810†	2.1 ☑	250 Ø	§J	10	10	100	15	100 #	30m#†	4.0Ø	10	10			150m	20uØ		MT14	CØ
86	2N1811†	2.1 ☑	250 Ø	§J	10	10	150	15	150 #	30m#†	4.0Ø	10	10			150m	20uØ		MT14	CØ
87	2N1812†	2.1 ☑	250 Ø	§J	10	10	200	15	200 #	30m#†	4.0Ø	10	10			150m	20uØ		MT14	CØ
88	2N1813†	2.1 ☑	250 Ø	§J	10	10	250	15	250 #	30m#†	4.0Ø	10	10			150m	20uØ		MT14	CØ
89	2N1814†	2.1 ☑	250 Ø	§J	10	10	300	15	300 #	30m#†	4.0Ø	10	10			150m	20uØ		MT14	CØ
90	2N1816†	2.1 ☑	250 Ø	§J	15	10	50	15	50 #	30m#†	4.0Ø	15	10			100m	20uØ		MT14	CØ
91	2N1817†	2.1 ☑	250 Ø	§J	15	10	100	15	100 #	30m#†	4.0Ø	15	10			100m	20uØ		MT14	CØ
92	2N1818†	2.1 ☑	250 Ø	§J	15	10	150	15	150 #	30m#†	4.0Ø	15	10			100m	20uØ		MT14	CØ
93	2N1819†	2.1 ☑	250 Ø	§J	15	10	200	15	200 #	30m#†	4.0Ø	15	10			100m	20uØ		MT14	CØ
94	2N1823†	2.1 ☑	250 Ø	§J	20	10	50	15	50 #	30m#†	4.0Ø	20	10			75m	20uØ		MT14	CØ
95	2N1824†	2.1 ☑	250 Ø	§J	20	10	100	15	100 #	30m#†	4.0Ø	20	10			75m	20uØ		MT14	CØ
96	2N1825†	2.1 ☑	250 Ø	§J	20	10	150	15	150 #	30m#†	4.0Ø	20	10			75m	20uØ		MT14	CØ
97	2N1826†	2.1 ☑	250 Ø	§J	20	10	200	15	200 #	30m#†	4.0Ø	20	10			75m	20uØ		MT14	CØ
98	2N1830†	2.1 ☑	250 Ø	§J	25	10	50	15	50 #	30m#†	4.0Ø	25	10			60m	20uØ		MT14	CØ
99	2N1831†	2.1 ☑	250 Ø	§J	25	10	100	15	100 #	30m#†	4.0Ø	25	10			60m	20uØ		MT14	CØ
100	2N1832†	2.1 ☑	250 Ø	§J	25	10	150	15	150 #	30m#†	4.0Ø	25	10			60m	20uØ		MT14	CØ
101	2N1833†	2.1 ☑	250 Ø	§J	25	10	200	15	200 #	30m#†	4.0Ø	25	10			60m	20uØ		MT14	CØ
102	2N2109†	2.1 ☑	250 Ø	§J	10	10	50	15	50 #	30 #†	4.0Ø	10	10			150m	20uØ		MT17	F
103	2N2110†	2.1 ☑	250 Ø	§J	10	10	100	15	100 #	30 #†	4.0Ø	10	10			150m	20uØ		MT17	F
104	2N2111†	2.1 ☑	250 Ø	§J	10	10	150	15	150 #	30 #†	4.0Ø	10	10			150m	20uØ		MT17	F
105	2N2112†	2.1 ☑	250 Ø	§J	10	10	200	15	200 #	30 #†	4.0Ø	10	10			150m	20uØ		MT17	F
106	2N2113†	2.1 ☑	250 Ø	§J	10	10	250	15	250 #	30 #†	4.0Ø	10	10			150m	20uØ		MT17	F
107	2N2114†	2.1 ☑	250 Ø	§J	10	10	300	15	300 #	30 #†	4.0Ø	10	10			150m	20uØ		MT17	F
108	2N2116†	2.1 ☑	250 Ø	§J	15	10	50	15	50 #	30 #†	4.0Ø	15	10			100m	20uØ		MT17	F
109	2N2117†	2.1 ☑	250 Ø	§J	15	10	100	15	100 #	30 #†	4.0Ø	15	10			100m	20uØ		MT17	F
110	2N2118†	2.1 ☑	250 Ø	§J	15	10	150	15	150 #	30 #†	4.0Ø	15	10			100m	20uØ		MT17	F

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AEXMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1	2N2119†	2.1 ☑	250 Ø	§J	15	10	200	15	200 #	30 #†	4.0Ø	15	10			100m	20uØ		MT17	F
2	2N2123†	2.1 ☑	250 Ø	§J	20	10	50	15	50 #	30 #†	4.0Ø	20	10			75m	20uØ		MT17	F
3	2N2124†	2.1 ☑	250 Ø	§J	20	10	100	15	100 #	30 #†	4.0Ø	20	10			75m	20uØ		MT17	F
4	2N2125†	2.1 ☑	250 Ø	§J	20	10	150	15	150 #	30 #†	4.0Ø	20	10			75m	20uØ		MT17	F
5	2N2126†	2.1 ☑	250 Ø	§J	20	10	200	15	200 #	30 #†	4.0Ø	20	10			75m	20uØ		MT17	F
6	2N2130†	2.1 ☑	250 Ø	§J	25	10	50	15	50 #	30 #†	4.0Ø	25	10			60m	20uØ		MT17	F
7	2N2131†	2.1 ☑	250 Ø	§J	25	10	100	15	100 #	30 #†	4.0Ø	25	10			60m	20uØ		MT17	F
8	2N2132†	2.1 ☑	250 Ø	§J	25	10	150	15	150 #	30 #†	4.0Ø	25	10			60m	20uØ		MT17	F
9	2N2133†	2.1 ☑	250 Ø	§J	25	10	200	15	200 #	30 #†	4.0Ø	25	10			60m	20uØ		MT17	F
10	2N1820†	2.2 ☑	250 Ø	§J	15	10	250	15	250 #	30m#†	4.0Ø	15	10			100m	20uØ		MT14	CØ
11	2N2120†	2.2 ☑	250 Ø	§J	15	10	250	15	250 #	30m#†	4.0Ø	15	10			100m	20uØ		MT17	FØ
12▼#	2SC642A	2.5	50	§J	1.0		1.5k	5.0	800 §	10uØ	15Ø	150m	30	160	1.5M†			DME	TO3	C
13▼#	2SC643A	2.5	50	§J	2.5		1.5k	5.0	800 §	10uØ	15Ø	2.0	7.0	50	4.0M†			DME	TO3	C
14▼#	2SC999	2.5	50	§J	1.5		1.5k	5.0	700 §	10uØ	15Ø	150m	30	120	1.0M†			DME	TO3	C
15▼#	2SC999A	2.5	50	§J	2.5		1.5k	5.0	650 §	10uØ	15Ø	200m	15	60	4.0M†			DME	TO3	C
16▼#	2SC1004A	2.5	50	§J	500m		1.5k	5.0	800 §	10uØ	15Ø	150m	30	160	2.0M†			DME	TO3	C
17▼#	2SD107	2.5	50	§J	5.0		80	10	60	20uØ	5.0Ø	1.0	1.0k	10k	30M†			DPL	TO3	C
18▼#	2SD108	2.5	50	§J	5.0		80	10	40	2.0uØ	5.0Ø	1.0	1.0k	10k				DPL	TO3	C
19	STC2500	2.8 #	500 Ø	§C	150		100		100		3.0Ø	100	10			20m			MT49	
20	STC2501	2.8 #	500 Ø	§C	150		150		150		3.0Ø	100	10			20m			MT49	
21	STC2502	2.8 #	500 Ø	§C	150		170		170		3.0Ø	100	10			20m			MT49	
22	TIXP39§	4.0	40 $	§A	10	4.0	80	5.0	80	500u	4.0	5.0	40	200	120M	100m		PE	TO59	
23	TIXP40§	4.0	40 $	§A	10	4.0	70	5.0	70	500u	4.0	5.0	40	200	120M	100m		PE	TO59	
24▼#	2SC782A	5.0	25	§J	1.5		300	5.0	300	30uØ	10Ø	100m	40	350	10M§			DME	TO66	C
25	1401-0415†	5.0 §	625 Ø	§J	250	35	50	10	40 ☑	2.0m#	4.0Ø	150	10 #		500k§Δ		5.0uØ	D	MT14a	C
26	1401-0420†	5.0 §	625 Ø	§J	250	35	50	10	40 ☑	2.0m#	4.0Ø	200	10 #		500k§Δ			D	MT14a	C
27	1401-0425†	5.0 §	625 Ø	§J	250	35	50	10	40 ☑	2.0m#	4.0Ø	250	10 #		500k§Δ			D	MT14a	C
28	1401-0615†	5.0 §	625 Ø	§J	250	35	70	10	60 ☑	2.0m#	4.0Ø	150	10 #		500k§Δ		5.0uØ	D	MT14a	C
29	1401-0620†	5.0 §	625 Ø	§J	250	35	70	10	60 ☑	2.0m#	4.0Ø	200	10 #		500k§Δ			D	MT14a	C
30	1401-0625†	5.0 §	625 Ø	§J	250	35	70	10	60 ☑	2.0m#	4.0Ø	250	10 #		500k§Δ			D	MT14a	C
31	1401-0815†	5.0 §	625 Ø	§J	250	35	90	10	80 ☑	2.0m#	4.0Ø	150	10 #		500k§Δ		5.0uØ	D	MT14a	C
32	1401-0820†	5.0 §	625 Ø	§J	250	35	90	10	80 ☑	2.0m#	4.0Ø	200	10 #		500k§Δ			D	MT14a	C
33	1401-0825†	5.0 §	625 Ø	§J	250	35	90	10	80 ☑	2.0m#	4.0Ø	250	10 #		500k§Δ			D	MT14a	C
34	1401-1015†	5.0 §	625 Ø	§J	250	35	110	10	100 ☑	2.0m#	4.0Ø	150	10 #		500k§Δ		5.0uØ	D	MT14a	C
35	1401-1020†	5.0 §	625 Ø	§J	250	35	110	10	100 ☑	2.0m#	4.0Ø	200	10 #		500k§Δ			D	MT14a	C
36	1401-1025†	5.0 §	625 Ø	§J	250	35	110	10	100 ☑	2.0m#	4.0Ø	250	10 #		500k§Δ			D	MT14a	C
37	1401-1215†	5.0 §	625 Ø	§J	250	35	130	10	120 ☑	2.0m#	4.0Ø	150	10 #		500k§Δ		5.0uØ	D	MT14a	C
38#	BDY10†	5.0	150 Ø	§J	2.0		50	5.0	40	300u	2.0Ø	2.0	10	50	10k	350m	4.0u	D	TO3	CØ
39#	BDY11†	5.0	150 Ø	§J	2.0		100	5.0	70	300u	2.0Ø	2.0	10	50	10k	350m	4.0u	D	TO3	CØ
40#	2SC481	5.5	6.0 Ø	§J	1.0		60		60 §	10uØ	2.0Ø	150mΔ	50 †		100M§Δ			PE	TO39	
41	2N5185	6.6	1.0	§J	50m			5.0	120		10Ø	50m	10		50M§				R119	AØ
42▼#	2SC515A	7.5	20	§J	100m		300	5.0	200	100uØ	10Ø	50m	30	200	20M§			DPL	TO66	C
43	B3746	13 $	1.0 $	§J	800m				20		10Ø	10m	20						TO18	A
44	TRL2015	13 Ø	2.0	§S	3.0	1.0	200	4.0	200 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
45	TRL2255S	13 Ø	2.0	§S	3.0	1.0	250	4.0	225	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
46	TRL2505	13 Ø	2.0	§S	3.0	1.0	250	4.0	250 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
47	TRL2505S	13 Ø	2.0	§S	3.0	1.0	275	4.0	250	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
48	TRL2755S	13 Ø	2.0	§S	3.0	1.0	300	4.0	275	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
49	TRL3015	13 Ø	2.0	§S	3.0	1.0	300	4.0	300 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
50	TRL3015S	13 Ø	2.0	§S	3.0	1.0	325	4.0	300	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
51	TRL3505	13 Ø	2.0	§S	3.0	1.0	350	4.0	350 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
52	TRL3515S	13 Ø	2.0	§S	3.0	1.0	375	4.0	350	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	
53	TRL4015	13 Ø	2.0	§S	3.0	1.0	400	4.0	400 §	10u	10Ø	500m	15	35 Ø	20M§Δ		400n	DM	MD14	

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	[3] TYPE No.	[1] fab (Hz)	[2] MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	MAT	MAX. TEMP (°C)	DWG. No.	LEAD CODE
1	2N5271		1.0n	5.0n			600m					6p§Ø		N	Si	200S	TO39	AØ
2	2N5432		1.0n	40nØ	6.0nØ	30n	300m				5.0	30p§		N§	Si	150S	TO52	DJ
3	2N5433		1.0n	40nØ	6.0nØ	30n	300m				7.0	30p§		N§	Si	150S	TO52	DJ
4	2N5434		1.0n	40nØ	6.0nØ	30n	300m				10	30p§		N§	Si	150S	TO52	DJ
5#	111T2		1.0n	5.0n		4.0n	800m	10 Ø	150mØ	120 Ø	3.0			N-PE	Si	175J	R100	A
6	NS1110		1.0n	5.0n		4.0n	500m							N	Si	175J	TO18	AØ
7	NS1111		1.0n	5.0n		4.0n	500m							N	Si	175J	TO18	AØ
8	2N4856		3.0n	6.0nØ	25nØ		360m				25 §	18p§Ø		N Ø	Si	200S	TO18	DBØ
9	2N4856A		3.0n	5.0nØ		20nØ	1.8 Ø				25 §	10p§		N Ø	Si	200S	TO18	DB
10	2N4859		3.0n	6.0nØ	25nØ		360m				25 §	18p§Ø		N Ø	Si	200S	TO18	DBØ
11	2N4859A		3.0n	5.0nØ		20nØ	1.8 Ø				25 §	10p§		N Ø	Si	200S	TO18	DB
12	153-04		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	15 Δ	.87			N-F	Si	175J	MT52	
13	153-06		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	15 Δ	.87			N-F	Si	175J	MT52	
14	153-08		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	15 Δ	.87			N-F	Si	175J	MT52	
15	153-10		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	15 Δ	.87			N-F	Si	175J	MT52	
16	153-12		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	15 Δ	.87			N-F	Si	175J	MT52	
17	153-14		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	15 Δ	.87			N-F	Si	175J	MT52	
18	153-16		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	15 Δ	.87			N-F	Si	175J	MT52	
19	153-18		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	15 Δ	.87			N-F	Si	175J	MT52	
20	153-20		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	15 Δ	.87			N-F	Si	175J	MT52	
21	153-22		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	15 Δ	.87			N-F	Si	175J	MT52	
22	153-24		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	15 Δ	.87			N-F	Si	175J	MT52	
23	153-26		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	15 Δ	.87			N-F	Si	175J	MT52	
24	153-28		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	15 Δ	.87			N-F	Si	175J	MT52	
25	154-04		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	25 Δ	.83			N-F	Si	175J	MT52	
26	154-06		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	25 Δ	.83			N-F	Si	175J	MT52	
27	154-08		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	25 Δ	.83			N-F	Si	175J	MT52	
28	154-10		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	25 Δ	.83			N-F	Si	175J	MT52	
29	154-12		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	25 Δ	.83			N-F	Si	175J	MT52	
30	154-14		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	25 Δ	.83			N-F	Si	175J	MT52	
31	154-16		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	25 Δ	.83			N-F	Si	175J	MT52	
32	154-18		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	25 Δ	.83			N-F	Si	175J	MT52	
33	154-20		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	25 Δ	.83			N-F	Si	175J	MT52	
34	154-22		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	25 Δ	.83			N-F	Si	175J	MT52	
35	154-24		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	25 Δ	.83			N-F	Si	175J	MT52	
36	154-26		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	25 Δ	.83			N-F	Si	175J	MT52	
37	154-28		3.0nØ		6.0nØ		200	4.0 Ø	1.5mØ	25 Δ	.83			N-F	Si	175J	MT52	
38#	BSV38		3.0n	6.0n		25nØ	300mØ				25 §	18p§Ø		NPE§	Si	150S	u51	G
39#	BSV38P		3.0n	6.0n		25nØ	150mØ				25 §	18p§Ø		NPE§	Si	150S	u17c	E
40	TIS73		3.0n	6.0nØ		25nØ	360m				5.0 §			N-PE§	Si	150S	X55	DB
41	2N4857		4.0n	6.0nØ	50nØ		360m				40 §	18p§Ø		N Ø	Si	200S	TO18	DBØ
42	2N4857A		4.0n	6.0nØ		40nØ	1.8 Ø				40 §	10p§		N Ø	Si	200S	TO18	DB
43	2N4860		4.0n	6.0nØ	50nØ		360m				40 §	18p§Ø		N Ø	Si	200S	TO18	DBØ
44	2N4860A		4.0n	6.0nØ		40nØ	1.8 Ø				40 §	10p§		N Ø	Si	200S	TO18	DB
45	TIS74		4.0n	6.0nØ		50nØ	360m				40 §			N-PE§	Si	150S	X55	DB
46	2N4391		5.0n	15nØ	20nØ	15n	1.8 Ø				30 §	14p§Ø		N§Ø	Si	200S	TO18	DBØ
47	2N4392		5.0n	15nØ	35nØ	20n	1.8 Ø				60 §	14p§Ø		N§Ø	Si	200S	TO18	DBØ
48	2N4393		5.0n	15nØ	50nØ	30n	1.8 Ø				100 §	14p§Ø		N§Ø	Si	200S	TO18	DBØ
49	2N4977		5.0n	5.0n		20nØ	1.8 Ø				15 §	35p§		N	Si	200S	TO18	Ø
50	2N5555		5.0n			10n	310m				150 §	5pØ§		N	Si	150S	TO92	DD
51▼	2N5638		5.0n	5.0n		10m	310m					10p§		N§Ø	Si	150S	TO92	DD
52▼	2N5653		5.0n	5.0n		10n	310m					10p§		N§Ø	Si	150S	TO92	DD
53	LDF691		5.0n	15nØ	20nØ	15n	360m					16p§Ø		N§Ø	Si	150J	u34	DB
54	LDF692		5.0n	15nØ	35nØ	20n	360m					16p§Ø		N§Ø	Si	150J	u34	DB
55	163-04		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	15 Δ	.22			N-F	Si	175J	MT33	
56	163-06		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	15 Δ	.22			N-F	Si	175J	MT33	
57	163-08		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	15 Δ	.22			N-F	Si	175J	MT33	
58	163-10		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	15 Δ	.22			N-F	Si	175J	MT33	
59	163-12		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	15 Δ	.22			N-F	Si	175J	MT33	
60	163-14		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	15 Δ	.22			N-F	Si	175J	MT33	
61	163-16		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	15 Δ	.22			N-F	Si	175J	MT33	
62	163-18		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	15 Δ	.22			N-F	Si	175J	MT33	
63	163-20		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	15 Δ	.22			N-F	Si	175J	MT33	
64	163-22		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	15 Δ	.22			N-F	Si	175J	MT33	
65	163-24		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	15 Δ	.22			N-F	Si	175J	MT33	
66	163-26		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	15 Δ	.22			N-F	Si	175J	MT33	
67	163-28		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	15 Δ	.22			N-F	Si	175J	MT33	
68	164-04		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	25 Δ	.20			N-F	Si	175J	MT33	
69	164-06		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	25 Δ	.20			N-F	Si	175J	MT33	
70	164-08		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	25 Δ	.20			N-F	Si	175J	MT33	
71	164-10		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	25 Δ	.20			N-F	Si	175J	MT33	
72	164-12		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	25 Δ	.20			N-F	Si	175J	MT33	
73	164-14		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	25 Δ	.20			N-F	Si	175J	MT33	
74	164-16		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	25 Δ	.20			N-F	Si	175J	MT33	
75	164-18		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	25 Δ	.20			N-F	Si	175J	MT33	
76	164-20		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	25 Δ	.20			N-F	Si	175J	MT33	
77	164-22		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	25 Δ	.20			N-F	Si	175J	MT33	
78	164-24		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	25 Δ	.20			N-F	Si	175J	MT33	
79	164-26		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	25 Δ	.20			N-F	Si	175J	MT33	
80	164-28		6.0nØ		12nØ		200 #	4.0 Ø	5.0mØ	25 Δ	.20			N-F	Si	175J	MT33	
81	151-06		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	11 Δ	870m			N-F	Si	150J	MT1	
82	151-08		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	11 Δ	870m			N-F	Si	150J	MT1	
83	151-10		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	11 Δ	870m			N-F	Si	150J	MT1	
84	151-12		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	11 Δ	870m			N-F	Si	150J	MT1	
85	151-14		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	11 Δ	870m			N-F	Si	150J	MT1	
86	151-16		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	11 Δ	870m			N-F	Si	150J	MT1	
87	151-18		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	11 Δ	870m			N-F	Si	150J	MT1	
88	151-20		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	11 Δ	870m			N-F	Si	150J	MT1	
89	151-22		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	11 Δ	870m			N-F	Si	150J	MT1	
90	151-24		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	11 Δ	870m			N-F	Si	150J	MT1	
91	151-26		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	11 Δ	870m			N-FΔ	Si	150J	MT1	
92	151-28		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	11 Δ	870m			N-FΔ	Si	150J	MT1	
93	152-04		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	18 Δ	870m			N-F	Si	150J	MT1	
94	152-06		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	18 Δ	870m			N-F	Si	150J	MT1	
95	152-08		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	18 Δ	870m			N-F	Si	150J	MT1	
96	152-10		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	18 Δ	870m			N-F	Si	150J	MT1	
97	152-12		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	18 Δ	870m			N-F	Si	150J	MT1	
98	152-14		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	18 Δ	870m			N-F	Si	150J	MT1	
99	152-16		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	18 Δ	870m			N-F	Si	150J	MT1	
100	152-18		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	18 Δ	870m			N-F	Si	150J	MT1	
101	152-20		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	18 Δ	870m			N-F	Si	150J	MT1	
102	152-22		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	18 Δ	870m			N-F	Si	150J	MT1	
103	152-24		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	18 Δ	870m			N-F	Si	150J	MT1	
104	152-26		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	18 Δ	830m			N-FΔ	Si	150J	MT1	
105	152-28		7.0nØ			14nØ	100	4.0 Ø	1.5mØ	18 Δ	830m			N-FΔ	Si	150J	MT1	
106	2N4858A		8.0n	8.0nØ		80nØ	1.8 Ø				60 §	10p§		N Ø	Si	200S	TO18	DB
107	2N4861A		8.0n	8.0nØ		80nØ	1.8 Ø				60 §	10p§		N Ø	Si	200S	TO18	DB
108▼	2N5639		8.0n	10n		20n	310m					10p§		N§Ø	Si	150S	TO92	DD
109▼	2N5654		8.0n	10n		20n	310m					10p§		N§Ø	Si	150S	TO92	DD
110	2N3970		10n	10n	30nØ		1.8				30 §			N	Si	200S	TO18	DBØ

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	MAT	MAX. TEMP (°C)	DWG. No.	LEAD CODE
1	2N4094		10n	15n		40nØ	1.8 Ø				20 §			N	Si	200S	TO18	DBØ
2	2N4858		10n	10n	100nØ		360m				60 §	18p§☑		N☑	Si	200S	TO18	DBØ
3	2N4861		10n	10n	100nØ		360m				60 §	18p§☑		N☑	Si	200S	TO18	DBØ
4	2N4978		10n	50n	40nØ		1.8 Ø				20 §	35p§		N	Si	200S	TO18	DBØ
5	2N5114		10n			15n	500m				75 §	25p§☑		P☑	Si	200S	TO18	DAØ
6▼	2N5640		10n	15n		30n	310m					10p§		N§☑	Si	150S	TO92	DD
7▼	3N169		10n			15n	800mØ					5.0p§		N	Si	200S	TO72	DRØ
8▼	3N170		10n			15n	800mØ					5.0p§		N	Si	200S	TO72	DRØ
9▼	3N171		10n		15n	800mØ						5.0p§		N	Si	200S	TO72	DRØ
10	RH120		10nØ	25n§		25nØ	200m	5.0 Ø	10mØ	130	200	2.0p☑		N-PL	Si	200J	ZA14	
11	TIS75		10n	10nØ		100nØ	360m				60 §			N-PE§	Si	120S	X55	DE
12	U1897E		10n	15n		40nØ	300m				30 §	16p☑§		N§	Si	125J	R97b	DB
13	2N3971		15n	15n	60nØ		1.8				60 §			N	Si	200S	TO18	DBØ
14	S939		15n	10n	25n	15n		1.5 Ø	1.0 Ø	15 △	1.0	10p		N	Si	200J	TO39	
15	JAN2N501A		18n		12n	10n	60m	500mØ	50mØ	30 △	5.0	3.0p☑		P	Ge	100S	R139	A
16	2N4092A		20n	15n		60nØ	1.8 Ø				50 §	16p§☑		N	Si	200S	TO18	DBØ
17	2N4095		20n	15n		60nØ	1.8 Ø				40 §			N	Si	200S	TO18	DBØ
18	2N4445		20n	15n	20n	15n	400m					70p§☑		N	Si	200S	TO46	DDØ
19	2N4446		20n	15n	20n	15n	400m					70p§☑		N	Si	200S	TO46	DDØ
20	2N4447		20n	15n	20n	15n	400m					70p§☑		N	Si	200S	TO46	DDØ
21	2N4448		20n	15n	20n	15n	400m					70p§☑		N	Si	200S	TO46	DDØ
22	2N5018		20n	15n	50nØ		1.8 Ø				75 §	45p§		P	Si	200J	TO18	DAØ
23	2N5115		20n			30n	500m				100 §	25p§☑		P☑	Si	200S	TO18	DAØ
24	2N5158		20n	15n	20n	15n	400m				10 §	50p§		N	Si	200S	TO46	DDØ
25	2N5159		20n	15n	20n	15n	400m				7.0 §	50p§		N	Si	200S	TO46	DDØ
26	U240		20n	15nØ	20nØ	15n	400m					70p§		N§☑	Si	200S	TO52	DBØ
27	U241		20n	15nØ	20nØ	15n	400m					70p§		N§☑	Si	200S	TO52	DBØ
28	U242		20n	15nØ	20nØ	15n	400m					70p§		N§☑	Si	200S	TO52	DBØ
29	U243		20n	15nØ	20nØ	15n	400m					70p§		N§☑	Si	200S	TO52	DBØ
30	U1898E		20n	15n		60nØ	300m				50 §	16p☑§		N§	Si	125J	R97b	DB
31	3N163		24n	12nØ		50nØ	375m	15	10m	2.0 §△	250 §	2.5p§		P-MOS§	Si	200S	TO72	DM
32	3N164		24n	12nØ		50nØ	375m	15	10m	1.0 §△	300 §	2.5p§		P-MOS§	Si	200S	TO72	DM
33▼	3N172		24n			50nØ	375m	15	10m	4.0 §		3.5p§		P	Si	200S	TO72	DMØ
34▼	3N173		24n			50nØ	375m	15	10m	4.0 §		3.5p§		P	Si	200S	TO72	DMØ
35	2N5188		25n	10n	35n	15n	800m	.50 Ø	150mØ	25 △	3.3			N	Si	200S	TO39	AØ
36	2N837		30nØ		50nØ	40n	300mØ	.50 Ø	10mØ	30 △	25	9.0p☑		P	Ge	100S	TO18	AØ
37	2N2173		30n	30n	100n	80n	240m	1.0 Ø	200mØ	30 △	2.0	6.0p☑		P	Ge	100S	TO39	AØ
38	2N4066		30n	20n		50nØ	1.7 Ø	15		1.5 §	500 §	7p§☑		P§	Si	175J	L18a	
39	2N4067		30n	20n		50nØ	1.7 Ø	15		2.5 §	250 §	7p§☑		P§	Si	175J	L18a	
40	2N4979		30n	10n	60nØ		1.8 Ø				40 §	35p§		N	Si	200J	TO18	DBØ
41	2N5116		30n			50n	500m				150 §	25p§☑		P☑	Si	200S	TO18	DAØ
42	2N5262		30nØ			60nØ	800m	1.0 Ø	100mØ	35 △	.80			N	Si	200S	R81e	AØ
43	3N162		30n	30nØ	160nØ	180n	2.0 Ø				100 §	20p§☑		P-MOS	Si	150S	TO33	DM
44	3N166		30n	15nØ		50nØ	300m	15	10m	1.5 §△	300 §	3.0p§		P-MOS§	Si	200S	L18c	
45▼	3N175		30n	25nØ	50nØ	150n	225m					5.0p§☑		NMOS☑§	Si	200S	TO72	DR
46▼	3N181		30n	30nØ	50nØ	180n	600m					25p§☑		PMOS☑§	Si	200S	TO33	DM
47▼	MEM400		30n	30n	160n	180n	600m				40 §	25p§		P	Si	200S	TO33	DM
48▼	MEM401		30n	30n	160n	180n	600m				60 §	25p§		P	Si	200S	TO33	DM
49▼	MEM402		30n	30n	160n	180n	600m				75 §	30p§		P	Si	200S	TO33	DM
50	2N994		35nØ		45nØ		200m	.25 Ø	10mØ	140 ☑	18	6.0p☑		P	Ge	150S	TO18	AØ
51▼	3N176		35n	30nØ	55nØ	150n	225m					5.0p§☑		NMOS☑§	Si	200S	TO72	DR
52▼	3N182		35n	35nØ	160nØ	180n	600m					25p§☑		PMOS☑§	Si	200S	TO33	DM
53	CM697		35nØ		35nØ		400m				15 §			N-E	Si	200J	R135	DDØ
54	2N3972		40n	40n	100nØ		1.8				100 §			N	Si	200S	TO18	DBØ
55	2N4093A		40n	20n		80nØ	1.8 Ø				80 §	16p§☑		N	Si	200S	TO18	DBØ
56	2N5189		40nØ			70nØ	1.0	1.0 Ø	1.0 Ø	15 △	1.0			N	Si	200S	R81	AØ
57▼	3N177		40n	35nØ	60nØ	150n	225m					7.0p§☑		NMOS☑§	Si	200S	TO72	DR
58▼	3N183		40n	40nØ	160nØ	180n	600m					30p§☑		PMOS☑§	Si	200S	TO33	DM
59#	BFV51		40nØ			50nØ	150m	10 Ø	500mØ	20 △	3.3	8.0p☑		NPE	Si	200J	u34b	P
60#	BFV53		40nØ			50nØ	150m	10 Ø	500mØ	20 △	3.3	8.0p☑		NPE	Si	200J	u34b	P
61	U1899E		40n	20n		80nØ	300m				80 §	16p☑§		N§	Si	125J	R97b	DB
62#	2SC913		42nØ		25n	38nØ	300m	1.0 Ø	30mØ	45 †△		5.0p☑		N-PE	Si	175J	TO18	
63▼	3N184		45n	35nØ	55nØ	150n	300m					9.0p§☑		PMOS☑§	Si	200S	TO72	DM
64▼	3N174		50n			100n	360m	15		400u§		4.0p§		P	Si	200S	TO72	DMØ
65▼	3N185		50n	40nØ	60nØ	150n	300m					10p§☑		PMOS☑§	Si	200S	TO72	DM
66▼	3N186		55n	45nØ	65nØ	150n	300m					11p§☑		PMOS☑§	Si	200S	TO72	DM
67	JAN2N560		60nØ			250nØ	500m	5.0 Ø	100mØ	200 ☑	55	8.0p☑		N	Si	200J	TO5	AØ
68	2N1499		60n				25m*	250mØ	10mØ	20 △	20			P-AD	Ge	85S	TO9	A
69	2N4267		60n	50n	100nØ		400m							P*	Si	175J	TO72	DM
70	2N4268		60n	50n	100nØ		400m							P*	Si	175J	TO72	DM
71	2N4353		60n	60nØ	120nØ	180n	250m							P	Si	125S	TO72	DM
72#	2SC916		60nØ			200nØ	2.0	1.0 Ø	400mØ	40 †△		38p☑		N-PE	Si	175J	TO8	
73#	BSW30		60n	50n		100nØ	1.3 Ø					11p§		P-MOS	Si	175J	TO72	DM
74#	BSW31		60n	50n		100nØ	1.3 Ø					11p§		P-MOS	Si	175J	TO72	DM
75♦	2N3867		65n	35n	325n	75n	6.0 Ø	3.0 Ø	2.5 Ø	25 △	1.0	120p☑		P	Si	200S	TO5	AØ
76♦	2N3868		65n	35n	325n	75n	6.0 Ø	3.0 Ø	2.5 Ø	20 △	1.0	120p☑		P	Si	200S	TO5	AØ
77	2N4351		65n	45n	160nØ		300m				300 §	5p§☑		N§	Si	200S	TO72	DR
78	2N4352		65n	45n	160nØ		300m				600 §	5p§☑		P§	Si	200S	TO72	DR
79	3N155		65n	45n		100n	300m				600 §			P☑	Si	175J	TO72	DR
80	3N155A		65n			100n	300m				300 §	5.0p§		P☑	Si	175J	TO72	DG
81	3N156		65n	45n		100n	300m				600 §			P☑	Si	175J	TO72	DR
82	3N156A		65n			100n	300m				300 §	5.0p§		P☑	Si	175J	TO72	DG
83▼	MEM200		65n	45n	100n	100n	225m				200 §	5.0p§		N	Si	200S	TO22	DR
84▼	MEM201		65n	45n	100n	100n	225m				300 §	5.0p§		N	Si	200S	TO22	DR
85▼	MEM202		65n	45n	100n	100n	225m				500 §	7.0p§		N	Si	200S	TO22	DR
86	MEM562		65n			160nØ	650mØ	10	2.0m	1.0 §	300 §	3.0 §		N-MOS§	Si	125J	TO72	DR
87	JAN2N695		75nØ		100n	100n	150mØ	300mØ	10mØ	25 △	20	5.0p☑		P	Ge	100J	TO17	G
88	JAN2N705		75nØ		100n	100n	150m	300mØ	10mØ	10 △				P	Ge	100J	TO18	Ø
89	2N710A		75nØ		50n	75n	300mØ	500mØ	10mØ	25 △	50	8.0p☑		P	Ge	100S	TO18	AØ
90	2N782		75nØ		35n	75nØ	300mØ	.25 Ø	10mØ	20 △	20			P	Ge	100J	TO18	AØ
91	2N5019		75n	15n	100nØ		1.8 Ø				150 §	45p§		P	Si	200J	TO18	DAØ
92▼	MEM100		75n	55n	150n	150n	300m				150 §	9.0p§		P	Si	200S	TO72	DM
93▼	MEM101		75n	55n	150n	150n	300m				175 §	10p§		P	Si	200S	TO72	DM
94▼	MEM102		75n	55n	150n	150n	300m				200 §	11p§		P	Si	200S	TO72	DM
95#	98T2		85n†	60n†	85n†	40n†	200m	5.0 Ø	100mØ	350 *	6.0			N-PE†	Si	100J	TO98	B
96	2N4305		90n	50n	300n	100n	1.5	2.0 Ø	5.0mØ	10 #	.20 #	100p☑		N	Si	200J	TO5	A
97	2N4306		90n	50n	300n	100n	4.0	2.0 Ø	5.0mØ	10 #△	.20 #	100p☑		N	Si	200J	MT65	
98	2N4307		90n	50n	300n	100n	1.5	2.0 Ø	5.0mØ	10 #△	.20 #	100p☑		N	Si	200J	TO5	A
99	2N4308		90n	50n	300n	100n	4.0	2.0 Ø	5.0mØ	10 #△	.20 #	100p☑		N	Si	200C	MT65	
100	2N4309		90n	50n	300n	100n	1.5	2.0 Ø	5.0mØ	10 #△	.33 #	100p☑		N	Si	200J	TO5	A
101	2N4310		90n	50n	300n	100n	4.0	2.0 Ø	5.0mØ	10 #△	.33 #	100p☑		N	Si	200C	MT65	
102	2N4311		90n	50n	300n	100n	1.5	2.0 Ø	5.0mØ	10 #△	.33 #	100p☑		N	Si	200J	TO5	AØ
103	2N4312		90n	50n	300n	100n	4.0	2.0 Ø	5.0mØ	10 #△	.33 #	100p☑		N	Si	200C	MT65	
104	JAN2N1072		100nØ			300nØ	12 Ø	5.0 Ø	750mØ	20 △	1.5	55p☑		N	Si	150S	TO38	A
105	2N1450		100n	100n	85n	85n	120m	1.0 Ø	10mØ	20 △				P-AD	Ge	85S	TO9	
106	JAN2N1450M		100nØ			85nØ	120m	1.0 Ø	10mØ	10 △	25			P	Ge	100S	R81a	
107	2N3966		100n	20n		100nØ	320m				220 §	6.0p§		N	Si	200S	TO72	DH
108	3N147		100n	20n		150n	1.7 Ø				850 §			P☑	Si	175J	L18a	
109	3N148		100n	20n		150n	1.7 Ø				850 §			P☑	Si	175J	L18a	
110	3N149		100n	20n		150n	1.3 Ø				400 §			P☑	Si	175J	TO72	DM

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	M A T	MAX. TEMP (°C)	DWG. No.	C O D E
1	3N150		100n	20n		150n	1.3 Ø				400 §			P⊠	Si	175J	TO72	DM
2	D4D20		100n		100n	100n	150m	5.0 Ø	10mØ	15	150	4.0p⊠		N-GD	Si	150J	R133	A
3	D4D21		100n		100n	100n	150m	5.0 Ø	10mØ	40	150	4.0p⊠		N-GD	Si	150J	R133	A
4	2N3342		150nØ		80n	200n	250m	1.0 Ø	5.0mØ	30 △	20	10p⊠		P	Si	175S	TO5	A
5	2N4065		150n	100n	400nØ		1.0 Ø							P§⊠	Si	175J	TO72	DM
6#	BSX84		150n	100n		400nØ	1.0 Ø	15		800m§	800 §	2.5p§		P-DPL	Si	175J	TO72	DM
7	2N4256		180n		3.5u		200m	.20 Ø	10mØ	60 △	20				Si	125	TO98	A
8	3N145		200n	10n		400n	1.0 Ø				2.0k§			P⊠	Si	175J	TO72	DM
9	3N146		200n	10n		400n	1.0 Ø				2.0k§			P⊠	Si	175J	TO72	DM
10#	BSW95		200n	10n	50n	400n	350m							P-MOS	Si	175J	TO72	DM
11#	BSW95A		200n	10n	50n	400n	350m							P-MOS	Si	175J	TO72	DM
12	2N1729		300nØ			600nØ	150m	.35 Ø	200mØ	20 △	3.0	20p⊠		P	Ge	85J	TO5	A§
13	2N1730		300nØ			600nØ	150m	.35 Ø	200mØ	20 △	3.0	20p⊠		N	Ge	85J	TO5	A§
14	2N447B		400nØ		700nØ		150m	.25 Ø	20mØ	80 △				N	Ge	100S	TO5	A
15#	3SJ11		400nØ†			400nØ†	100m							P-MOS	Si	150S	TO72	Du
16	2N545		500n			800nØ	5 §Ø	6.0 Ø	500mØ	80 ⊠	10	100p⊠		N	Si	200S	TO5	AØ
17	JAN2N545		500n			500nØ	600m§	6.0 Ø	500mØ	15 △	10	100p⊠		N	Si	175S	TO5	Ø
18	2N546		500n			800nØ	5 §Ø	6.0 Ø	500mØ	80 ⊠	10	100p⊠		N	Si	200S	TO5	AØ
19	JAN2N1173		500nØ			2.0uØ	250m	1.0 Ø	10m	200 ⊠	7.5	25p⊠		N	Ge	100S	TO29	A
20	JAN2N1174		500nØ			2.0uØ	250m	1.0 Ø	10m	200 ⊠	7.5	25p⊠		P	Ge	100S	TO29	A
21	2N357A		800nØ		600n	800n	150m	.25 Ø	200mØ	75 ⊠	1.0			N	Ge	100S	TO5	A§
22	2N358A		800nØ		600n	800n	150m	.25 Ø	300mØ	75 ⊠	.67			N	Ge	100S	TO5	A§
23	JAN2N358A		800nØ		600n	800n	150m	250mØ	1.0m△	60 △				N	Ge	100S	R81a	A§
24	JAN2N1853		800nØ			900nØ	150m	1.0 Ø	200u△	400 ⊠	33			P	Ge	85S	TO5	A
25	JAN2N388		1000nØ		700n	700n		750mØ	200mØ	24 △		25p⊠		N	Ge	100J	TO5	A
26	DA3F3		1200n		30uØ		187 Ø	2.0 Ø	1.0 Ø	25 △				P	Ge	100J	MT7	
27	NS1510		1500nØ		1.5uØ		100m	1.0 Ø	.10mØ	75	1.0k	6.0p⊠		N	Si	175	TO18	AØ
28	2N356A		2100nØ		500n	1.2u	150m	.25 Ø	1.0mØ	50 ⊠	2.0			N	Ge	100S	TO5	A§
29	2N1954		2750nØ		2.7u	3.5u	200m	500mØ	200mØ	22 △	8.7			P	Ge	100S	TO5	A
30	2N1955		2750nØ		2.7u	3.5u	200m	500mØ	200mØ	22 △	8.7			P	Ge	100S	TO5	A
31	2N1956		2750nØ		2.7u	3.5u	200m	500mØ	200mØ	22 △	8.7			P	Ge	100S	TO5	A
32	2N1957		2750nØ		2.7u	3.5u	200m	500mØ	200mØ	22 △	8.7			P	Ge	100S	TO5	A
33	2N1172		3000n			3.0u		2.0 Ø	500mØ	30	.60			P	Ge	95J	TO37	AØ
34	JAN2N2528		4000n		3.0u	2.0u	85 Ø	2.0 Ø	3.0mØ	20 △	80m			P	Ge	110J	MD6f	CØ
35	B170018		4000n		300n	500n	60 Ø	4.0 Ø	1.0mØ	30	400m			N-DM	Si	200J	TO3	CØ
36	B170021		4000n		300n	500n	60 Ø	4.0 Ø	1.0mØ	30	400m			N-DM	Si	200J	TO3	CØ
37	B170024		4000n		300n	500n	60 Ø	4.0 Ø	1.0mØ	30	400m			N-DM	Si	200J	TO3	CØ
38	2N2739		6000nØ		12uØ		.20m§	12 Ø	2.5 Ø	25 †△	.15			N	Si	175C	MT1	B
39	2N2740		6000nØ		12uØ		.20m§	12 Ø	2.5 Ø	25 †△	.15			N	Si	175C	MT1	B
40	2N2741		6000nØ		12uØ		.20m§	12 Ø	2.5 Ø	25 †△	.15			N	Si	175C	MT1	B
41	2N2742		6000nØ		12uØ		.20m§	12 Ø	2.5 Ø	25 †△	.15			N	Si	175C	MT1	B
42▼	2N2743		6.0uØ			12uØ	200 Ø	4.0 Ø	10 Ø	10 △				N	Si	175C	MT1b	B
43▼	2N2744		6.0uØ			12uØ	200 Ø	4.0 Ø	10 Ø	10 △				N	Si	175C	MT1b	B
44	2N2745		6000nØ		12uØ		.20m§	12 Ø	3.7 Ø	20 †△	.10			N	Si	175C	MT1	B
45	2N2746		6000nØ		12uØ		.20m§	12 Ø	3.7 Ø	20 †△	.10			N	Si	175C	MT1	B
46	2N2747		6000nØ		12uØ		.20m§	12 Ø	3.7 Ø	20 †△	.10			N	Si	175C	MT1	B
47	2N2748		6000nØ		12uØ		.20m§	12 Ø	3.7 Ø	20 †△	.10			N	Si	175C	MT1	B
48	2N2757		6000nØ		12uØ		.20m§Ø	12 Ø	2.5 Ø	25 †△	.15			N	Si	175C	MT33	A
49	2N2758		6000nØ		12uØ		.20m§Ø	12 Ø	2.5 Ø	25 †△	.15			N	Si	175C	MT33	A
50	2N2759		6000nØ		12uØ		.20m§Ø	12 Ø	2.5 Ø	25 †△	.15			N	Si	175C	MT33	A
51	2N2760		6000nØ		12uØ		.20m§Ø	12 Ø	2.5 Ø	25 †△	.15			N	Si	175C	MT33	A
52	2N2761		6000nØ		12uØ		.20m§Ø	12 Ø	2.5 Ø	25 †△	.15			N	Si	175C	MT33	A
53▼	2N2762		6.0uØ			12uØ	200 §		Ø 10 Ø	10 △				N	Si	175C	MT33	A
54	2N2763		6000nØ		12uØ		.20m§Ø	12 Ø	3.7 Ø	20 †△	.10			N	Si	175C	MT33	A
55	2N2764		6000nØ		12uØ		.20m§Ø	12 Ø	3.7 Ø	20 †△	.10			N	Si	175C	MT33	A
56	2N2765		6000nØ		12uØ		.20m§Ø	12 Ø	3.7 Ø	20 †△	.10			N	Si	175C	MT33	A
57	2N2766		6000nØ		12uØ		.20m§Ø	12 Ø	3.7 Ø	20 †△	.10			N	Si	175C	MT33	A
58▼	2N2767		6.0uØ			12uØ	200 §		Ø 15 Ø	10 △				N	Si	175C	MT33	A
59▼	2N2768		6.0uØ			12uØ	200 §		Ø 15 Ø	10 △				N	Si	175C	MT33	A
60	B170019		6000n		400n	1.0u	90 Ø	4.0 Ø	3.0mØ	20	270m			N-DM	Si	200J	TO3	CØ
61	B170022		6000n		400n	1.0u	90 Ø	4.0 Ø	3.0mØ	20	270m			N-DM	Si	200J	TO3	CØ
62	B170025		6000n		400n	1.0u	90 Ø	4.0 Ø	3.0mØ	20	270m			N-DM	Si	200J	TO3	CØ
63	2N2751		7000nØ		13uØ		.20m§	12 Ø	5.0 Ø	20 †△	.07			N	Si	175C	MT1	B
64	2N2752		7000nØ		13uØ		.20m§	12 Ø	5.0 Ø	20 †△	.07			N	Si	175C	MT1	B
65	2N2753		7000nØ		13uØ		.20m§	12 Ø	5.0 Ø	20 †△	.07			N	Si	175C	MT1	B
66	2N2754		7000nØ		13uØ		.20m§	12 Ø	5.0 Ø	20 †△	.07			N	Si	175C	MT1	B
67▼	2N2755		7.0uØ			13uØ	200 Ø	4.0 Ø	20 Ø	10 △				N	Si	175C	MT1b	B
68▼	2N2756		7.0uØ			13uØ	200 Ø	4.0 Ø	20 Ø	10 △				N	Si	175C	MT1b	B
69	2N2769		7000nØ		13uØ		.20m§Ø	12 Ø	5 Ø	20 †△	.07			N	Si	175C	MT33	A
70	2N2770		7000nØ		13uØ		.20m§Ø	12 Ø	5 Ø	20 †△	.07			N	Si	175C	MT33	A
71	2N2771		7000nØ		13uØ		.20m§Ø	12 Ø	5 Ø	20 †△	.07			N	Si	175C	MT33	A
72	2N2772		7000nØ		13uØ		.20m§Ø	12 Ø	5 Ø	20 †△	.07			N	Si	175C	MT33	A
73▼	2N2773		7.0uØ			13uØ	200 §		20 Ø	10 △				N	Si	175C	MT33	A
74▼	2N2774		7.0uØ			13uØ	200 §	4.0 Ø	20 Ø	10 △				N	Si	175C	MT33	A
75	151-04		7000nØ			14nØ	100	4.0 Ø	1.5mØ	11 △	.87			N-F S i		150J	MT1	
76	2N2775		8000nØ		14uØ		.20m§Ø	12 Ø	6.2mØ	20 †△	.06			N	Si	175C	MT33	A
77	2N2776		8000nØ		14uØ		.20m§Ø	12 Ø	6.2mØ	20 †△	.06			N	Si	175C	MT33	A
78	2N2777		8000nØ		14uØ		.20m§Ø	12 Ø	6.2mØ	20 †△	.06			N	Si	175C	MT33	A
79	2N2778		8000nØ		14uØ		.20m§Ø	12 Ø	6.2mØ	20 †△	.06			N	Si	175C	MT33	A
80▼	2N2779		8.0uØ			14uØ	200 §	4.0 Ø	25 Ø	10 △				N	Si	175C	MT33	A
81▼	2N2780		8.0uØ			14uØ	200 §	4.0 Ø	25 Ø	10 △				N	Si	175C	MT33	A
82	B170020		8000n		500n	1.5u	120 Ø	4.0 Ø	5.0mØ	12	300m			N-DM	Si	200J	TO3	CØ
83	B170023		8000n		500n	1.5u	120 Ø	4.0 Ø	5.0mØ	12	300m			N-DM	Si	200J	TO3	CØ
84	B170026		8000n		500n	1.5u	120 Ø	4.0 Ø	5.0mØ	12	300m			N-DM	Si	200J	TO3	CØ
85	MP1534		8000nØ		3.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	35 △	400m			P-A	Ge	110J	TO41	CØ
86	MP1535		8000nØ		3.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	35 △	400m			P-A	Ge	110J	TO41	CØ
87	MP1536		8000nØ		3.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	35 △	400m			P-A	Ge	110J	TO41	CØ
88	MP1537		8000nØ		3.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	35 △	400m			P-A	Ge	110J	TO41	CØ
89	MP1538		8000nØ		3.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	35 △	400m			P-A	Ge	110J	TO41	CØ
90	MP600		10u		6.0u	13u	85 Ø	2.0 Ø	5.0 Ø	50 △	30m			PADE	Ge	110J	TO3	CØ
91	MP601		10u		6.0u	13u	85 Ø	2.0 Ø	5.0 Ø	50 △	30m			PADE	Ge	110J	TO3	CØ
92	MP602		10u		6.0u	13u	85 Ø	2.0 Ø	5.0 Ø	50 △	30m			PADE	Ge	110J	TO3	CØ
93	MP603		10u		6.0u	13u	85 Ø	2.0 Ø	5.0 Ø	50 △	30m			PADE	Ge	110J	TO3	CØ
94	MP1529		10uØ		2.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	20 △	500m			P-A	Ge	110J	TO41	CØ
95	MP1530		10uØ		2.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	20 △	500m			P-A	Ge	110J	TO41	CØ
96	MP1531		10uØ		2.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	20 △	500m			P-A	Ge	110J	TO41	CØ
97	MP1532		10uØ		2.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	20 △	500m			P-A	Ge	110J	TO41	CØ
98	MP1533		10uØ		2.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	20 △	500m			P-A	Ge	110J	TO41	CØ
99	2N5435		12u		10u	8.0u	120 Ø	2.0 Ø	25 Ø	20 △				P	Ge	110J	TO3	CØ
100	2N5436		12u		10u	8.0u	120 Ø	2.0 Ø	25 Ø	20 △				P	Ge	110J	TO3	CØ
101	2N5437		12u		10u	8.0u	120 Ø	2.0 Ø	25 Ø	20 △				P	Ge	110J	TO3	CØ
102	2N5438		12u		10u	8.0u	120 Ø	2.0 Ø	25 Ø	40 △				P	Ge	110J	TO3	CØ
103	2N5439		12u		10u	8.0u	120 Ø	2.0 Ø	25 Ø	40 △				P	Ge	110J	TO3	CØ
104	2N5440		12u		10u	8.0u	120 Ø	2.0 Ø	25 Ø	40 △				P	Ge	110J	TO3	CØ
105	2N637		15.0u			35u	25	5.0 Ø	3 Ø	30 △				P	Ge	100J	TO3	CØ
106	2N637A		15.0u			35u	25	5.0 Ø	3 Ø	30 △				P	Ge	100J	TO3	CØ
107	2N637B		15.0u			35u	25	5.0 Ø	3 Ø	30 △				P	Ge	100J	TO3	CØ
108	2N638		15.0u			35u	25	5.0 Ø	3 Ø	20 △				P	Ge	100J	TO3	CØ
109	2N638A		15.0u			35u	25	5.0 Ø	3 Ø	20 △				P	Ge	100J	TO3	CØ
110	2N638B		15.0u			35u	25	5.0 Ø	3 Ø	20 △				P	Ge	100J	TO3	CØ

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	MAT	MAX. TEMP (°C)	DWG. No.	LEAD CODE
1	2N639		15.0u			35u	25	5.0 Ø	3 Ø	15 Δ				P	Ge	100J	TO3	CØ
2	2N639A		15.0u			35u	25	5.0 Ø	3 Ø	15 Δ				P	Ge	100J	TO3	CØ
3	2N639B		15.0u			35u	25	5.0 Ø	3 Ø	15 Δ				P	Ge	100J	TO3	CØ
4	DTG2400M		18u		12u	18u	85 Ø	2.0 Ø	25	15 Δ				P	Ge	110J	TO3	
5	2N1809		20uØ			25uØ	250 Ø	4.0 Ø	10 Ø	10 Δ	150m			N	Si	175J	MT14	CØ
6	2N1810		20uØ			25uØ	250 Ø	4.0 Ø	10 Ø	10 Δ	150m			N	Si	175J	MT14	CØ
7	2N1811		20uØ			25uØ	250 Ø	4.0 Ø	10 Ø	10 Δ	150m			N	Si	175J	MT14	CØ
8	2N1812		20uØ			25uØ	250 Ø	4.0 Ø	10 Ø	10 Δ	150m			N	Si	175J	MT14	CØ
9	2N1813		20uØ			25uØ	250 Ø	4.0 Ø	10 Ø	10 Δ	150m			N	Si	175J	MT14	CØ
10	2N1814		20uØ			25uØ	250 Ø	4.0 Ø	10 Ø	10 Δ	150m			N	Si	175J	MT14	CØ
11	2N1816		20uØ			25uØ	250 Ø	4.0 Ø	15 Ø	10 Δ	100m			N	Si	175J	MT14	CØ
12	2N1817		20uØ			25uØ	250 Ø	4.0 Ø	15 Ø	10 Δ	100m			N	Si	175J	MT14	CØ
13	2N1818		20uØ			25uØ	250 Ø	4.0 Ø	15 Ø	10 Δ	100m			N	Si	175J	MT14	CØ
14	2N1819		20uØ			25uØ	250 Ø	4.0 Ø	15 Ø	10 Δ	100m			N	Si	175J	MT14	CØ
15	2N1820		20uØ			25uØ	250mØØ	4.0 Ø	15uØ	10 Δ	100m			N	Si	175J	MT14	CØ
16	2N1823		20uØ			25uØ	250 Ø	4.0 Ø	20 Ø	10 Δ	75m			N	Si	175J	MT14	CØ
17	2N1824		20uØ			25uØ	250 Ø	4.0 Ø	20 Ø	10 Δ	75m			N	Si	175J	MT14	CØ
18	2N1825		20uØ			25uØ	250 Ø	4.0 Ø	20 Ø	10 Δ	75m			N	Si	175J	MT14	CØ
19	2N1826		20uØ			25uØ	250 Ø	4.0 Ø	20 Ø	10 Δ	75m			N	Si	175J	MT14	CØ
20	2N1830		20uØ			25uØ	250 Ø	4.0 Ø	25 Ø	10 Δ	60m			N	Si	175J	MT14	CØ
21	2N1831		20uØ			25uØ	250 Ø	4.0 Ø	25 Ø	10 Δ	60m			N	Si	175J	MT14	CØ
22	2N1832		20uØ			25uØ	250 Ø	4.0 Ø	25 Ø	10 Δ	60m			N	Si	175J	MT14	CØ
23	2N1833		20uØ			25uØ	250 Ø	4.0 Ø	25 Ø	10 Δ	60m			N	Si	175J	MT14	CØ
24	2N2109		20uØ			25uØ	250 Ø	4.0 Ø	10 Ø	10 Δ	150m			N	Si	175J	MT17	F
25	2N2110		20uØ			25uØ	250 Ø	4.0 Ø	10 Ø	10 Δ	150m			N	Si	175J	MT17	F
26	2N2111		20uØ			25uØ	250 Ø	4.0 Ø	10 Ø	10 Δ	150m			N	Si	175J	MT17	F
27	2N2112		20uØ			25uØ	250 Ø	4.0 Ø	10 Ø	10 Δ	150m			N	Si	175J	MT17	F
28	2N2113		20uØ			25uØ	250 Ø	4.0 Ø	10 Ø	10 Δ	150m			N	Si	175J	MT17	F
29	2N2114		20uØ			25uØ	250 Ø	4.0 Ø	10 Ø	10 Δ	150m			N	Si	175J	MT17	F
30	2N2116		20uØ			25uØ	250 Ø	4.0 Ø	15 Ø	10 Δ	100m			N	Si	175J	MT17	F
31	2N2117		20uØ			25uØ	250 Ø	4.0 Ø	15 Ø	10 Δ	100m			N	Si	175J	MT17	F
32	2N2118		20uØ			25uØ	250 Ø	4.0 Ø	15 Ø	10 Δ	100m			N	Si	175J	MT17	F
33	2N2119		20uØ			25uØ	250 Ø	4.0 Ø	15 Ø	10 Δ	100m			N	Si	175J	MT17	F
34	2N2120		20uØ			25uØ	250mØØ	4.0 Ø	15uØ	10 Δ	100m			N	Si	175J	MT17	FØ
35	2N2123		20uØ			25uØ	250 Ø	4.0 Ø	20 Ø	10 Δ	75m			N	Si	175J	MT17	F
36	2N2124		20uØ			25uØ	250 Ø	4.0 Ø	20 Ø	10 Δ	75m			N	Si	175J	MT17	F
37	2N2125		20uØ			25uØ	250 Ø	4.0 Ø	20 Ø	10 Δ	75m			N	Si	175J	MT17	F
38	2N2126		20uØ			25uØ	250 Ø	4.0 Ø	20 Ø	10 Δ	75m			N	Si	175J	MT17	F
39	2N2130		20uØ			25uØ	250 Ø	4.0 Ø	25 Ø	10 Δ	60m			N	Si	175J	MT17	F
40	2N2131		20uØ			25uØ	250 Ø	4.0 Ø	25 Ø	10 Δ	60m			N	Si	175J	MT17	F
41	2N2132		20uØ			25uØ	250 Ø	4.0 Ø	25 Ø	10 Δ	60m			N	Si	175J	MT17	F
42	2N2133		20uØ			25uØ	250 Ø	4.0 Ø	25 Ø	10 Δ	60m			N	Si	175J	MT17	F
43▼	2N5692		20u		8.0u	15u	120 Ø	2.0 Ø	40	10 Δ				P	Ge	110J		
44▼	2N5693		20u		8.0u	15u	120 Ø	2.0 Ø	40	10 Δ				P	Ge	110J		
45▼	2N5694		20u		8.0u	15u	120 Ø	2.0 Ø	40	10 Δ				P	Ge	110J		
46▼	2N5695		20u		8.0u	15u	120 Ø	2.0 Ø	40	10 Δ				P	Ge	110J		
47▼	2N5696		20u		8.0u	15u	120 Ø	2.0 Ø	40	10 Δ				P	Ge	110J		
48	MP900		25u		5.0u	15u	250 Ø	2.0 Ø	70 Ø	20 Δ	3.0m			P-AN	Si	110J	X71	A
49	MP901		25u		5.0u	15u	250 Ø	2.0 Ø	70 Ø	20 Δ	3.0m			P-AN	Si	110J	X71	A
50	MP902		25u		5.0u	15u	250 Ø	2.0 Ø	70 Ø	20 Δ	3.0m			P-AN	Si	110J	X71	A
51	B113003		30u		6.0u	20u	3.5	2.0 Ø	10 Ø	100 ☑	30m			P-DA	Ge	110	TO3	CØ
52	B113004		30u		6.0u	20u	3.5	2.0 Ø	10 Ø	100 ☑	30m			P-DA	Ge	110	TO3	CØ
53	B113005		30u		6.0u	20u	3.5	2.0 Ø	10 Ø	100 ☑	30m			P-DA	Ge	110	TO3	CØ
54	2N426	6.00 §	1050nØ		1.1nØ		170m	250mØ	1.0mΔ	40	3.2	14p	55n	P-FA	Ge	80J	TO5	A
55	JAN2N5156	750 §☑	20u		25u	40u	90 Ø	2.0 Ø	5.0 Ø	250 ☑	100m			P	Ge	100A	TO3	CØ
56	2N4048	.002MtΔ	20uØ		70uØ		170mØ	2.0 Ø	60 Ø	15 #Δ				P	Ge	110J	TO36	CØ
57	2N4049	.002MtΔ	20uØ		70uØ		170mØ	2.0 Ø	60 Ø	15 #Δ				P	Ge	110J	TO36	CØ
58	2N4050	.002MtΔ	20uØ		70uØ		170mØ	2.0 Ø	60 Ø	15 #Δ				P	Ge	110J	TO36	CØ
59	2N4051	.002MtΔ	20uØ		70uØ		170mØ	2.0 Ø	60 Ø	15 #Δ				P	Ge	110J	TO36	CØ
60	2N4052	.002MtΔ	20uØ		70uØ		170mØ	2.0 Ø	60 Ø	15 #Δ				P	Ge	110J	TO36	CØ
61	2N4053	.002MtΔ	20uØ		70uØ		170mØ	2.0 Ø	60 Ø	115 #Δ				P	Ge	110J	TO36	CØ
62	2N4276	.002MtΔ	20uØ		70uØ		170mØ	2.0 Ø	60 Ø	15 #Δ				P	Ge	110J	TO3	CØ
63	2N4277	.002MtΔ	20uØ		70uØ		170mØ	2.0 Ø	60 Ø	15 #Δ				P	Ge	110J	TO3	CØ
64	2N4278	.002MtΔ	20uØ		70uØ		170mØ	2.0 Ø	60 Ø	15 #Δ				P	Ge	110J	TO3	CØ
65	2N4279	.002MtΔ	20uØ		70uØ		170mØ	2.0 Ø	60 Ø	15 #Δ				P	Ge	110J	TO3	CØ
66	2N4280	.002MtΔ	20uØ		70uØ		170mØ	2.0 Ø	60 Ø	15 #Δ				P	Ge	110J	TO3	CØ
67	2N4281	.002MtΔ	20uØ		70uØ		170mØ	2.0 Ø	60 Ø	15 #Δ				P	Ge	110J	TO3	CØ
68	2N4282	.002MtΔ	20uØ		70uØ		170mØ	2.0 Ø	60 Ø	15 #Δ				P	Ge	110J	TO3	CØ
69	2N4283	.002MtΔ	20uØ		70uØ		170mØ	2.0 Ø	60 Ø	15 #Δ				P	Ge	110J	TO3	CØ
70	JAN2N1553A	3.0kt Δ	10u	2.0u	5.0u	30u	90 Ø	2.0 Ø	5.0 Ø	30 Δ	700m			P	Ge	100J	MD6f	CØ
71	JAN2N1554A	3.0kt Δ	10u	2.0u	5.0u	30u	90 Ø	2.0 Ø	5.0 Ø	30 Δ	700m			P	Ge	100J	MD6f	CØ
72	JAN2N1555A	3.0kt Δ	10u	2.0u	5.0u	30u	90 Ø	2.0 Ø	5.0 Ø	30 Δ	700m			P	Ge	100J	MD6f	CØ
73	JAN2N1556A	3.0kt Δ	10u	2.0u	5.0u	30u	90 Ø	2.0 Ø	5.0 Ø	30 Δ	700m			P	Ge	100J	MD6f	CØ
74	JAN2N1557A	3.0kt Δ	10u	2.0u	5.0u	30u	90 Ø	2.0 Ø	5.0 Ø	60 Δ	50m			P	Ge	100J	MD6f	CØ
75	JAN2N1558A	3.0kt Δ	10u	2.0u	5.0u	30u	90 Ø	2.0 Ø	5.0 Ø	60 Δ	50m			P	Ge	100J	MD6f	CØ
76	JAN2N1559A	3.0kt Δ	10u	2.0u	5.0u	30u	90 Ø	2.0 Ø	5.0 Ø	60 Δ	50m			P	Ge	100J	MD6f	CØ
77	JAN2N1560A	3.0kt Δ	10u	2.0u	5.0u	30u	90 Ø	2.0 Ø	5.0 Ø	60 Δ	50m			P	Ge	100J	MD6f	CØ
78	2N2728	3.0kt Δ	25u		20u	15u	170 Ø	2.0 Ø	20uØ	40 Δ	2.0m			P	Ge	110C	TO36	CØ
79	MP1534A	5.0kt Δ	8000nØ		3.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	35 Δ	400m			P-A	Ge	110	TO41	CØ
80	MP1535A	5.0kt Δ	8000nØ		3.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	35 Δ	400m			P-A	Ge	110	TO41	CØ
81	MP1536A	5.0kt Δ	8000nØ		3.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	35 Δ	400m			P-A	Ge	110	TO41	CØ
82	MP1537A	5.0kt Δ	8000nØ		3.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	35 Δ	400m			P-A	Ge	110	TO41	CØ
83	MP1529A	5.0kt Δ	10uØ		2.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	20 Δ	500m			P-A	Ge	110	TO41	CØ
84	MP1530A	5.0kt Δ	10uØ		2.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	20 Δ	500m			P-A	Ge	110	TO41	CØ
85	MP1531A	5.0kt Δ	10uØ		2.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	20 Δ	500m			P-A	Ge	110	TO41	CØ
86	MP1532A	5.0kt Δ	10uØ		2.0u	5.0u	90 Ø	2.0 Ø	3.0 Ø	20 Δ	500m			P-A	Ge	110	TO41	CØ
87	JAN2N2079A	5.0kt Δ	25u			25u	150m	2.0 Ø	12mØ	12 Δ	60m			P	Ge	100S	TO36	CØ
88	2N1358A	.005Mt	30.0u		30u	30u	50 Ø	2.0 Ø	1.2 Ø	40 Δ	.06			P	Ge	100C	TO36	AØ
89	CDT1319	.006Mt	3500n		6.5u	2.5u	45mØ	2.0 Ø	2.0m	40	.30			P-A	Ge	100J	TO3	CØ
90	CDT1320	.006Mt	3500n		6.5u	2.5u	45mØ	2.0 Ø	2.0m	40	.30			P-A	Ge	100J	TO3	CØ
91	CDT1321	.006Mt	3500n		6.5u	2.5u	45mØ	2.0 Ø	2.0m	40	.30			P-A	Ge	100J	TO3	CØ
92	CDT1322	.006Mt	3500n		6.5u	2.5u	45mØ	2.0 Ø	2.0m	40	.30			P-A	Ge	100J	TO3	CØ
93	CDT1310	.008Mt	3500n		6.5u	2.5u	45mØ	2.0 Ø	2.0m	80	.30			P-A	Ge	100J	TO3	CØ
94	CDT1311	.008Mt	3500n		6.5u	2.5u	45mØ	2.0 Ø	2.0m	80	.30			P-A	Ge	100J	TO3	CØ
95	CDT1312	.008Mt	3500n		6.5u	2.5u	45mØ	2.0 Ø	2.0m	80	.30			P-A	Ge	100J	TO3	CØ
96	CDT1313	.008Mt	3500n		6.5u	2.5u	45mØ	2.0 Ø	2.0m	80	.30			P-A	Ge	100J	TO3	CØ
97#	BDY10	10kt	4000nt	250nt	1.5ut	3.0ut	150 Ø	2.0 Ø	200mØ	20 Δ	350m			N-D	Si	175J	TO3	CØ
98#	BDY11	10kt	4000nt	250nt	1.5ut	3.0ut	150 Ø	2.0 Ø	200mØ	20 Δ	350m			N-D	Si	175J	TO3	CØ
99	MP1549A	10kt	5000nØ		2.0u	10u	90 Ø	2.0 Ø	10uØ	10 Δ	100m			P-A	Ge	100J	TO41	CØ
100	MP1550A	10kt	5000nØ		2.0u	10u	90 Ø	2.0 Ø	10uØ	10 Δ	100m			P-A	Ge	100J	TO41	CØ
101	MP1551A	10kt	5000nØ		2.0u	10u	90 Ø	2.0 Ø	10uØ	10 Δ	100m			P-A	Ge	100J	TO41	CØ
102	MP1552A	10kt	5000nØ		2.0u	10u	90 Ø	2.0 Ø	10uØ	10 Δ	100m			P-A	Ge	100J	TO41	CØ
103	JAN2N1549A	10kt☑	8000n	2.0u	3.0u	6.0u	90 Ø	2.0 Ø	5.0 Ø	15 Δ	100m			P	Ge	100J	MD6f	CØ
104	JAN2N1550A	10kt☑	8000n	2.0u	3.0u	6.0u	90 Ø	2.0 Ø	5.0 Ø	15 Δ	100m			P	Ge	100J	MD6f	CØ
105	JAN2N1551A	10kt☑	8000n	2.0u	3.0u	6.0u	90 Ø	2.0 Ø	5.0 Ø	15 Δ	100m			P	Ge	100J	MD6f	CØ
106	JAN2N1552A	10kt☑	8000n	2.0u	3.0u	6.0u	90 Ø	2.0 Ø	5.0 Ø	15 Δ	100m			P	Ge	100J	MD6f	CØ
107	MP1553A	10kt	10uØ		5.0u	25u	90 Ø	2.0 Ø	10uØ	30 Δ	70m			P-A	Ge	100J	TO41	CØ
108	MP1554A	10kt	10uØ		5.0u	25u	90 Ø	2.0 Ø	10uØ	30 Δ	70m			P-A	Ge	100J	TO41	CØ
109	MP1555A	10kt	10uØ		5.0u	25u	90 Ø	2.0 Ø	10uØ	30 Δ	70m			P-A	Ge	100J	TO41	CØ
110	MP1556A	10kt	10uØ		5.0u	25u	90 Ø	2.0 Ø	10uØ	30 Δ	70m			P-A	Ge	100J	TO41	CØ

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	M A T	MAX. TEMP (°C)	DWG. No.	LEAD CODE
1	MP1557A	10kt	10uØ		5.0u	25u	90 Ø	2.0 Ø	10uØ	50 Δ	50m			P-A	Ge	100J	TO41	CØ
2	MP1558A	10kt	10uØ		5.0u	25u	90 Ø	2.0 Ø	10uØ	50 Δ	50m			P-A	Ge	100J	TO41	CØ
3	MP1559A	10kt	10uØ		5.0u	25u	90 Ø	2.0 Ø	10uØ	50 Δ	50m			P-A	Ge	100J	TO41	CØ
4	MP1560A	10kt	10uØ		5.0u	25u	90 Ø	2.0 Ø	10uØ	50 Δ	50m			P-A	Ge	100J	TO41	CØ
5	2N1159	.01Mt	10.9u			10u	20 Ø§	2.0 Ø	1 Ø	150 ☑	.30			P	Ge	95J	TO3	CØ
6	2N1160	.01Mt	10.9u			10u	20 Ø§	2.0 Ø	2 Ø	100 ☑	.20			P	Ge	95J	TO3	CØ
7	2N1100	.01Mt	15.0u			15u	30 Ø	2.0 Ø	12 Ø	20	.06			P	Ge	95J	TO36	CØ
8	3N46	12kt	6000n			1.2u	75 Ø	2.0 Ø	10m	27				P-A$	Ge	100J	TO15	GB
9	CST1773	.015M	2500n		300n	400n	28 Ø	2.0 Ø	500mØ	25 Δ	.50			P	Ge	100	MS7	
10	CST1773A	.015M	2500n		300n	400n	28 Ø	2.0 Ø	500mØ	25 Δ	.50			P	Ge	100	MS7	
11	CST1773B	.015M	2500n		300n	400n	28 Ø	2.0 Ø	500mØ	25 Δ	.50			P	Ge	100	MS7	
12	3N45	16.5kt	3.0n			6.0u	75 Ø	2.0 Ø	10 Ø	33				P-A$	Ge	100J	TO15	GB
13	2N3429	20kt Δ	4000n		4.0u	8.0u	150 Ø	2.0 Ø	5.0 Ø	10 Δ	200m			N	Si	175J	MT52	B
14	2N3430	20kt Δ	4000n		4.0u	8.0u	150 Ø	2.0 Ø	5.0 Ø	10 Δ	200m			N	Si	175J	MT52	B
15	2N3431	20kt Δ	4000n		4.0u	8.0u	150 Ø	2.0 Ø	5.0 Ø	10 Δ	200m			N	Si	175J	MT52	B
16	2N3432	20kt Δ	4000n		4.0u	8.0u	150 Ø	2.0 Ø	5.0 Ø	10 Δ	200m			N	Si	175J	MT52	B
17	2N3433	20kt Δ	4000n		4.0u	8.0u	150 Ø	2.0 Ø	5.0 Ø	10 Δ	200m			N	Si	175J	MT52	B
18	2N3434	20kt Δ	4000n		4.0u	8.0u	150 Ø	2.0 Ø	5.0 Ø	10 Δ	200m			N	Si	175J	MT52	B
19	2N1015	.02Mt	6000nØ		20uØ		700mØ	4.0 Ø	2 Ø	10 Δ				N	Si	150J	MT1	B
20	2N1015A	.02Mt	6000nØ		20uØ		700mØ	4.0 Ø	2 Ø	10 Δ				N	Si	150J	MT1	B
21	2N1015B	.02Mt	6000nØ		20uØ		700mØ	4.0 Ø	2 Ø	10 Δ				N	Si	150J	MT1	B
22	2N1015C	.02Mt	6000nØ		20uØ		700mØ	4.0 Ø	2 Ø	10 Δ				N	Si	150J	MT1	B
23	2N1015D	.02Mt	6000nØ		20uØ		700mØ	4.0 Ø	2 Ø	10 Δ				N	Si	150J	MT1	B
24	2N1015E	.02Mt	6000nØ		20uØ		700mØ	4.0 Ø	2 Ø	10 Δ				N	Si	150J	MT1	B
25	2N1015F	.02Mt	6000nØ		20uØ		700mØ	4.0 Ø	2 Ø	10 Δ				N	Si	150J	MT1	B
26	2N1016	.02Mt	6000nØ		10uØ		700mØ	4.0 Ø	5 Ø	10 Δ				N	Si	150J	MT1	B
27	2N1016A	.02Mt	6000nØ		10uØ		700mØ	4.0 Ø	5 Ø	10 Δ				N	Si	150J	MT1	B
28	2N1016B	.02Mt	6000nØ		10uØ		700mØ	4.0 Ø	5 Ø	10 Δ				N	Si	150J	MT1	B
29	2N1016C	.02Mt	6000nØ		10uØ		700mØ	4.0 Ø	5 Ø	10 Δ				N	Si	150J	MT1	B
30	2N1016D	.02Mt	6000nØ		10uØ		700mØ	4.0 Ø	5 Ø	10 Δ				N	Si	150J	MT1	B
31	2N1016E	.02Mt	6000nØ		10uØ		700mØ	4.0 Ø	5 Ø	10 Δ				N	Si	150J	MT1	B
32	2N1016F	.02Mt	6000nØ		10uØ		700mØ	4.0 Ø	5 Ø	10 Δ				N	Si	150J	MT1	B
33#	DT1510	25k	1000n	300n	4.5u	1.0u	800m	6.0 Ø	300mØ	25	7.0			N	Si	150S	TO5	
34#	DT1511	25k	1000n	300n	4.5u	1.0u	800m	6.0 Ø	300mØ	25	7.0			N	Si	150S	TO5	
35#	DT1512	25k	1000n	300n	4.5u	1.0u	800m	6.0 Ø	300mØ	25	7.0			N	Si	150S	TO5	
36	2N2580	.03Mt Δ	6000n		6.0u	5.0u	150 Ø	5.0 Ø	5.0mØ	10 Δ	.14			N	Si	150C	TO36	CØ
37	2N2581	.03Mt Δ	6000n		6.0u	5.0u	150 Ø	5.0 Ø	5.0mØ	25 Δ	.10			N	Si	150C	TO36	CØ
38	2N2582	.03Mt Δ	6000n		6.0u	5.0u	150 Ø	5.0 Ø	5.0mØ	10 Δ	.14			N	Si	150C	TO36	CØ
39	2N2583	.03Mt Δ	6000n		6.0u	5.0u	150 Ø	5.0 Ø	5.0mØ	10 Δ	.10			N	Si	150C	TO36	CØ
40	2N2584	30kt Δ	6.0u		6.0u	5.0u	150 Ø	5.0 Ø	5.0m	10 Δ	.14			N	Si	150C	TO36	CØ
41	2N2585	30kt Δ	6.0u		6.0u	5.0u	150 Ø	5.0 Ø	10m	10 Δ	1.0			N	Si	150C	TO36	CØ
42	2N3079	.03Mt Δ	6000n		6.0u	5.0u	150 Ø	5.0 Ø	5.0mØ	10 Δ	.14			N	Si	150C	TO36	CØ
43	2N3080	.03Mt Δ	6000n		6.0u	5.0u	150 Ø	5.0 Ø	5.0mØ	10 Δ	.14			N	Si	150C	TO36	CØ
44♦	2N3902	40k Δ	800n		900n	800n	100 Ø	5.0 Ø	1.0 Ø	30 Δ	1.0			N	Si	150J	TO3	CØ
45	2N1358	.10M	15nØ		15nØ		800m§	2.0	5.0mØ	25 Δ	.06			P	Ge	95J	TO36	CØ
46	2N5155	150k§ Δ	18u		12u	18u	60 Ø	2.0 Ø	8.0 Ø	25 Δ	36m			P	Ge	110J	TO3	CØ
47	2N5156	.15M§ Δ	20.0u		25u	40u	93 Ø	2.0 Ø	5 Ø	25 Δ	.10			P	Ge	100J	TO3	CØ
48	2N456	200k§	26u					1.5 Ø	500u	30	200m			P-A	Ge	95J	TO3	CØ
49	2N457	200k§	26u					1.5 Ø	500u	30	200m			P-A	Ge	95J	TO3	CØ
50	MP2000A	210k§	9.0uØt			17uØt	106 Ø	2.0 Ø	8.0 Ø	25 Δ	24m			PADE	Ge	110J	TO3	CØ
51	MP2100A	210k§	9.0utØ			17utØ	106 Ø	2.0 Ø	8.0 Ø	25 Δ	24m			PADE	Ge	110J	TO3	CØ
52	MP2200A	210k§	9.0utØ			17utØ	106 Ø	2.0 Ø	8.0 Ø	25 Δ	24m			PADE	Ge	110J	TO3	CØ
53	MP2300A	210k§	9.0utØ			17utØ	106 Ø	2.0 Ø	8.0 Ø	25 Δ	24m			PADE	Ge	110J	TO3	CØ
54	MP2400A	210k§	9.0utØ			17utØ	106 Ø	2.0 Ø	8.0 Ø	25 Δ	24m			PADE	Ge	110J	TO3	CØ
55	2N1042	250k§ Δ	480nt	200nt	290nt	2.1ut	1.1	1.0 Ø	3.0	60 ☑	250m	100p		P-A	Ge	100S	MT28	
56	2N1043	250k§ Δ	480nt	200nt	290nt	2.1ut	1.1	1.0 Ø	3.0	60 ☑	250m	100p		P-A	Ge	100S	MT28	
57	2N1044	250k§ Δ	480nt	200nt	290nt	2.1ut	1.1	1.0 Ø	3.0	60 ☑	250m	100p		P-A	Ge	100S	MT28	
58	2N1045	250k§ Δ	480nt	200nt	290nt	2.1ut	1.1	1.0 Ø	3.0	60 ☑	250m	100p		P-A	Ge	100S	MT28	
59	DTG2000	250k§	9000nØ			10uØ		2.0 Ø	25 Ø	15 Δ	36m			P	Ge	110J	TO41	
60	DTG2100	250k§	9000nØ			10uØ		2.0 Ø	25 Ø	15 Δ	36m			P	Ge	110J	TO41	
61	DTG2200	250k§	9000nØ			10uØ		2.0 Ø	25 Ø	15 Δ	36m			P	Ge	110J	TO41	
62	DTG2300	250k§	9000nØ			10uØ		2.0 Ø	25 Ø	15 Δ	36m			P	Ge	110J	TO41	
63	DTG2400	250k§	9000nØ			10uØ		2.0 Ø	25 Ø	15 Δ	36m			P	Ge	110J	TO41	
64	2SB282	.25M	15u		15u	25u	30 Ø	1.0 Ø	6.0	21				P-A	Ge	90J	TO3	
65	2SB283	.25M	15u		15u	25u	30 Ø	1.0 Ø	6.0	53				P-A	Ge	90J	TO3	
66	2SB284	.25M	15u		15u	25u	30 Ø	1.0 Ø	6.0	30				P-A	Ge	90J	TO3	
67	2SB285	.25M	15u		15u	25u	30 Ø	1.0 Ø	6.0	36				P-A	Ge	90J	TO3	
68#	ASZ15	.25M	20u		15u	40u		1.0	1.0m	20 Δ				P-A	Ge	90J	TO3	
69#	ASZ17	.25M	20u		15u	40u		1.0	1.0m	25 Δ				P-A	Ge	90J	TO3	
70#	ASZ18	.25M	20u		15u	40u		1.0	1.0m	30 Δ				P-A	GE	90J	TO3	
71#	OC28	.25M	20u		15u	40u	30 Ø	1.0 Ø	6 Ø	15 Δ	.60			PA	Ge	90J	TO3	
72#	OC29	.25M	20u		15u	40u	30 Ø	1.0 Ø	6 Ø	35 Δ	.60			PA	Ge	90J	TO3	
73#	OC35	.25M	20u		15u	40u	30 Ø	1.0 Ø	6 Ø	20 Δ	.60			PA	Ge	90J	TO3	
74#	OC36	.25M	20u		15u	40u	30 Ø	1.0 Ø	6 Ø	20 Δ	.60			PA	Ge	90J	TO3	
75#	2SB337H	300k	12n	2.0n	8.0n	14n	12 Ø	1.5 Ø	1.0 Ø	100				P	Ge	91J	TO3	
76#	2SB338H	300k	12n	2.0n	8.0n	14n	12 Ø	1.5 Ø	1.0 Ø	100				P	Ge	91J	TO3	
77	2N2526	.30M§ Δ	10.0u		5.0u	4.0u	85	2.0 Ø	3 Ø	50 ☑	.08				Ge	110	TO3	CØ
78	2N2527	.30M§ Δ	10.0u		5.0u	4.0u	85	2.0 Ø	3 Ø	50 ☑	.08				Ge	110	TO3	CØ
79	2N2528	.30M§ Δ	10.0u		5.0u	4.0u	85	2.0 Ø	3 Ø	50 ☑	.08				Ge	110	TO3	CØ
80#	2SB331H	.35M					14.m	2.0 Ø	5.0mØ	20 Δ				P	Ge	100J	TO36	
81#	2SB332H	.35M					14.m	2.0 Ø	5.0mØ	20 Δ				P	Ge	100J	TO36	
82#	2SB333H	.35M						2.0 Ø	5 Ø	25 Δ				P	Ge	100J	TO36	
83#	2SB334H	.35M						2.0 Ø	5 Ø	25 Δ				P	Ge	100J	TO36	
84	DTS401	.40M§	300nt		650nt	200nt	75 Ø	5.0 Ø	500mØ	20 Δ	1.6			N-D	Si	150J	TO3	AØ
85#	NKT401	.43M	10.0u		7.0u	15u	50 Ø	1.0 Ø	3 Ø	18 Δ	.14	185p		P	Ge	90J	MD17d	CØ
86#	NKT406	.43M	15.0u		6.0u	14u	50 Ø	1.0 Ø	3 Ø	21 Δ	.42	185p		P	Ge	90J	MD17d	CØ
87#	NKT402	.43M	16.0u		8.0u	20u	50 Ø	1.0 Ø	3 Ø	42 Δ	.14	185p		P	Ge	90J	MD17d	CØ
88#	NKT403	.43M	16.0u		8.0u	20u	50 Ø	1.0 Ø	3 Ø	35 Δ	.42	185p		P	Ge	90J	MD17d	CØ
89#	NKT404	.43M	16.0u		8.0u	20u	50 Ø	1.0 Ø	3 Ø	35 Δ	.42	185p		P	Ge	90J	MD17d	CØ
90	DTG1010	.45M§	6.0u		1.6u	700n	105 Ø				.16			P	Ge	110J	TO41	CØ
91	DTG1110	.45M§	6.0u		1.6u	700n	105 Ø				.16			P	Ge	110J	TO41	CØ
92#	DT1610	.50M	1000n	300n	4.5u	1.0u	600m	6.0 Ø	200mØ	10 t Δ	7.0			N	Si	115S	TO5	
93	2N1069	500k Δ	1.8u	200n	800n	1.4u	25 $	4.0 Ø	1.5 Ø	20	2.0			N-D	Si	175A	TO3	CØ
94	2N1070	500k Δ	1.8u	200n	800n	1.4u	25 $	4.0 Ø	1.5 Ø	20	670m			N-D	Si	175A	TO3	CØ
95	2N3795	.50M§ Δ	5.0uØ			5uØ	5.0mØ	2.0 Ø	10mØ	12 Δ	20			P	Si	200J	TO5	AØ
96	1401-0415	500k§ Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	150uØ	10 #				N-D	Si	200J	MT14a	C
97	1401-0420	500k§ Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	200uØ	10 #				N-D	Si	200J	MT14a	C
98	1401-0425	500k§ Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	250uØ	10 #				N-D	Si	200J	MT14a	C
99	1401-0615	500k§ Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	150uØ	10 #				N-D	Si	200J	MT14a	C
100	1401-0620	500k§ Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	200uØ	10 #				N-D	Si	200J	MT14a	C
101	1401-0625	500k§ Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	250uØ	10 #				N-D	Si	200J	MT14a	C
102	1401-0815	500k§ Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	150uØ	10 #				N-D	Si	200J	MT14a	C
103	1401-0820	500k§ Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	200uØ	10 #				N-D	Si	200J	MT14a	C
104	1401-0825	500k§ Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	250uØ	10 #				N-D	Si	200J	MT14a	C
105	1401-1015	500k§ Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	150uØ	10 #				N-D	Si	200J	MT14a	C
106	1401-1020	500k§ Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	200uØ	10 #				N-D	Si	200J	MT14a	C
107	1401-1025	500k§ Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	250uØ	10 #				N-D	Si	200J	MT14a	C
108	1401-1215	500k§ Δ	5000nØ			10uØ	625m§Ø	4.0 Ø	150uØ	10 #				N-D	Si	200J	MT14a	C
109	2N3667	500k§ Δ	6.0uØ			12uØ	117 Ø	3.0 Ø	8.0 Ø	15 # Δ				N	Si	200J	TO3	CØ
110	2N3863	.50M§ Δ	8.0uØ			16uØ	117 Ø	2.0 Ø	3 Ø	30 Δ	.33			N	Si	200C	TO3	CØ

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	M A T	MAX. TEMP (°C)	DWG. No.	L C E O A D D E
1	2N3864	.50M§△	8.0uØ			16uØ	117 Ø	2.0 Ø	3 Ø	30 △	.33			N	Si	200C	TO3	CØ
2	2N3865	.50M§△	8.0uØ			16uØ	117 Ø	2.0 Ø	3 Ø	30 △	.33			N	Si	200C	TO3	CØ
3	JAN2N1651	600k§△	10u		6.0u	5.0u	100 Ø	2.0 Ø	10 Ø	35 △	26m			P	Ge	110J	MD27	
4	JAN2N1652	600k§△	10u		6.0u	5.0u	100 Ø	2.0 Ø	10 Ø	35 △	26m			P	Ge	110J	MD27	
5	JAN2N1653	600k§△	10u		6.0u	5.0u	100 Ø	2.0 Ø	10 Ø	35 △	26m			P	Ge	110J	MD27	
6#	ACY41	600k§	12u	900n	10u	35u	260m	0.0	50m	105	1.0		50nt	P-AØ	Ge	90J	TO5	§
7	2N2691A	.60M§△	700u		3.0u	3.0u	170 Ø	1.5 Ø	20mØ	100 #☑	.03			P	Ge	110C	TO41	AØ
8	2N1067	750k△	1.2u	200n	700n	900n	2.5 $	4.0 Ø	200mØ	35	10			N-D	Si	175A	TO8	AØ
9	2N1092	750k△	1.2u	200n	700n	900n	1.0 $	4.0 Ø	200mØ	35	10			N-D	Si	175A	TO5	AØ
10	2N1068	750k△	1.6u	200n	1.0u	1.8u	5.0 $	4.0 Ø	750mØ	38	2.6			N-D	Si	175A	TO8	AØ
11#	2SD120H	.80M§			.70n	1.1n	1.0m	4.0 Ø	.2	60				N	Si	175J	TO39	
12#	2SD121H	.80M§			.70n	1.1n	1.0m	4.0 Ø	.2	60				N	Si	175J	TO39	
13	2N5559	.80M§△	6uØ			8uØ	100 $	2.0 Ø	4 Ø	20 △	.19	400p$		N	Si	200J	TO3	CØ
14#	ACY40	800k§	15u	900n	7.0u	35u	260m	0.0	50m	45	1.0		50nt	P-AØ	Ge	90J	TO5	§
15	DTG600	850k§	4.4u		3.1u	6.4u	85 Ø	2.0 Ø	5.0 Ø	115	30m			P-DA	Ge	110J	TO3	CØ
16	DTG601	850k§	4.4u		3.1u	6.4u	85 Ø	2.0 Ø	5.0 Ø	115	30m			P-DA	Ge	110J	TO3	CØ
17	DTG602	850k§	4.4u		3.1u	6.4u	85 Ø	2.0 Ø	5.0 Ø	115	30m			P-DA	Ge	110J	TO3	CØ
18	DTG603	850k§	4.4u		3.1u	6.4u	85 †Ø	2.0 Ø	5.0 Ø	115	33			P-DA	Ge	110J	TO3	CØ
19	DTG603M	.85M§	13.0u		6.0u	10u	85 Ø*	2.0 Ø	5 Ø	250 ☑				P	Ge	110S	TO3	CØ
20#	ACY17	1.00M§	12p	900n	10u	35u	260m	0.0	50m	100	1.0		50nt	P-AØ	Ge	90J	TO5	§
21#	ACY22	1.00M§	12p	900n	10u	35u	260m	0.0	50m	85	1.0		50nt	P-AØ	Ge	90J	TO5	§
22#	2SD124AH	1.0M	1.4n	.16n	2.2n	5.0n		4.0 Ø	1.5 Ø	40				N	Si	175J	TO39	
23#	DT1003	1.00M§	300n		250n	150n	600m	6.0 Ø	200mØ	12 △	3.0			N-D	Si	125A	TO5	Ø
24#	2SA32	1.00M	800n		1.5u	1.2u	100m	6.0 Ø	1.0m	65	4.0	12p	150nt	P-A	Ge	70J	R55	
25#	2SD125AH	1.00M	1400nt	160nt	2.2ut	5ut	23	4.0 Ø	1.5 Ø	50	.20			N-D	Si	175J	TO3	CØ
26#	2SD126H	1.00M	1400nt	160nt	2.2ut	5ut	23	4.0 Ø	1.5 Ø	40	.20			N-D	Si	175J	TO3	CØ
27	2N2858	1.00M§△	2000nØ			5uØ	600m	4.0 Ø	1.0 Ø	20 △	.30			N-D	Si	200J	TO5	AØ
28	2N2859	1.00M§△	2000nØ			5uØ	600m	4.0 Ø	1.0 Ø	20 △	.30			N-D	Si	200J	TO5	AØ
29	2N3774	1.00M§△	3000nØ		3uØ		5 $Ø	2.0 Ø	.20mØ	20 #△				P	Si	200J	TO5	AØ
30	2N3775	1.00M§△	3000nØ		3uØ		5 $Ø	2.0 Ø	.20mØ	20 #△				P	Si	200J	TO5	AØ
31	2N3776	1.00M§△	3000nØ		3uØ		5 $Ø	2.0 Ø	.20mØ	20 #△				P	Si	200J	TO5	AØ
32	2N3777	1.00M§△	3000nØ		3uØ		5 $Ø	2.0 Ø	.20mØ	20 #△				P	Si	200J	TO5	AØ
33	2N3778	1.00M§△	3000nØ		3uØ		5 $Ø	2.0 Ø	.20mØ	10 #△				P	Si	200J	TO5	AØ
34	2N3779	1.00M§△	3000nØ		3uØ		5 $Ø	2.0 Ø	.20mØ	10 #△				P	Si	200J	TO5	AØ
35	2N3780	1.00M§△	3000nØ		3uØ		5 $Ø	2.0 Ø	.20mØ	10 #△				P	Si	200J	TO5	AØ
36	2N3781	1.00M§△	3000nØ		3uØ		5 $Ø	2.0 Ø	.20mØ	10 #△				P	Si	200J	TO5	AØ
37	2N3782	1.00M§△	3000nØ		3uØ		5 $Ø	2.0 Ø	.20mØ	10 #△				P	Si	200J	TO5	AØ
38#	2SB65	1.00M	3000nt		3ut	4ut	150m	6.0 Ø	1.0m	65 †	3.0	40p		P-A	Ge	85J	TO1	
39	2N3675	1.00M§△	5000n	5.0u	5.0u	5.0u	8.8 Ø	1.0 Ø	1.0mØ	12 △	800m			N	Si	200C	TO5	Ø
40	2N3676	1.00M§△	5000n	5.0u	5.0u	5.0u	8.8 Ø	1.0 Ø	1.0mØ	12 △	800m			N	Si	200C	TO5	Ø
41#	ACY39	1.00M§	12u	900n	10u	35u	260m	0.0	50m	100	1.0		50nt	P-AØ	Ge	90J	TO5	§
42#	ACY18	1.00M§	15u	900n	8.0u	35u	260m	0.0	50m	65	1.0		50nt	P-AØ	Ge	90J	TO5	§
43#	ACY19	1.30M§	12u	900n	10u	35u	260m	0.0	50m	175	1.0		50nt	P-AØ	Ge	90J	TO5	
44#	2SD184	1.50M	1000nt		500nt	3.0ut	25 Ø	4.0 Ø	750uØ	50	2.0			N-ME	Si	175J	TO8	
45#	2SD185	1.50M	1000nt		500nt	3.0ut	25 Ø	4.0 Ø	750uØ	50	2.0			N-ME	Si	175J	TO8	
46#	2SB386	1.50M	3300n		2.0u	2.5u	150m	.50 Ø	50mØ	80	3.0	45p	80nt	P-A	Ge	85J	TO1	A
47▼	MJ3771	2.0M§△	350nt		700nt	300nt	150 Ø	4.0 Ø	15 Ø	15 △#				N	Si	200J	TO3	CØ
48▼	MJ3772	2.0M§△	350nt		700nt	300nt	150 Ø	4.0 Ø	10 Ø	15 △#				N	Si	200J	TO3	CØ
49	2N5301	2.00M†△	1000n		2.0u	1.0u	200 Ø	10 Ø	1 Ø	40 †△				N	Si	200J	TO3	CØ
50	2N5302	2.00M†△	1000n		2.0u	1.0u	200 Ø	10 Ø	1 Ø	40 †△				N	Si	200J	TO3	CØ
51	2N5303	2.00M†△	1000n		2.0u	1.0u	200 Ø	10 Ø	1 Ø	40 †△				N	Si	200J	TO3	CØ
52	DT1520	2.00M	1000n	300n	4.5u	1.0u	800m	6.0 Ø	300mØ	120 ☑	7.0			N	Si	150S	TO5	
53	DT1521	2.00M	1000n	300n	4.5u	1.0u	800m	6.0 Ø	300mØ	120 ☑	7.0			N	Si	150S	TO5	
54	DT1522	2.00M	1000n	300n	4.5u	1.0u	800m	6.0 Ø	300mØ	120 ☑	7.0			N	Si	150S	TO5	
55#	2SD15	2.00M△	1300n	160n	2.5u	2.6u	80	4.0 Ø	1.5 Ø	30	1.0			N-D	Si	150J	TO3	
56#	2SD16	2.00M△	1300n	160n	2.5u	2.6u	80	4.0 Ø	1.5 Ø	30	1.0			N-D	Si	150J	TO3	
57#	2SD17	2.00M△	1300n	160n	2.5u	2.6u	80	4.0 Ø	1.5 Ø	30	1.0			N-D	Si	150J	TO3	
58#	2SD18	2.00M△	1300n	160n	2.5u	2.6u	80	4.0 Ø	6.0mØ	20				N-D	Si	150J	TO3	
59#	2SD163	2.00M	1400nt	160nt	2.8ut	3.2ut	100 Ø	4.0 Ø	5 Ø	30 ☑	.30			N-D	Si	150J	TO3	CØ
60#	2SD164	2.00M	1400nt	160nt	2.8ut	3.2ut	100 Ø	4.0 Ø	5 Ø	30 ☑	.30			N-D	Si	150J	TO3	CØ
61#	2SD165	2.00M	1400nt	160nt	2.8ut	3.2ut	100 Ø	4.0 Ø	5 Ø	30 ☑	.30			N-D	Si	150J	TO3	CØ
62#	2SD166	2.00M	1400nt	160nt	2.8ut	3.2ut	100 Ø	4.0 Ø	5 Ø	30 ☑	.30			N-D	Si	150J	TO3	CØ
63	2N2580M	2.00M§△	1500nØ			3.2uØ	150 Ø	5.0 Ø	10 Ø	4.0 △	140m			N-D	Si	150J	TO36	CØ
64#	2SD110	2.00M§	2000nØ†		12ut	9.0ut	100 Ø	5.0 Ø	5.0 Ø	10 △	.30	200p		N-D	Si	150J	TO3	CØ
65#	2SD111	2.00M§	2000nØ†		12ut	9.0ut	100 Ø	5.0 Ø	5.0 Ø	10 △	.30	200p		N-D	Si	150J	TO3	CØ
66	2N5324	2.00M§△	15.0u		10M	7.0u	56 Ø	2.0 Ø	5 Ø	60 ☑	.05			P	Ge	110J	TO3	CØ
67	2N5325	2.00M§△	15.0u		10M	7.0u	56 Ø	2.0 Ø	5 Ø	60 ☑	.05			P	Ge	110J	TO3	CØ
68	DTS431M	2.50M§△	800nØ		1.7uØ		125 Ø	5.0 Ø	3.5 Ø	10 △	.30			N-D	Si	150	TO3	CØ
69	JAN2N425	2.50M△	1050nØ			1.2uØ	150m	250mØ	1.0mA	40 ☑	400m	20p☑		P	Ge	100S	TO5	A
70	JAN2N3902	2.80M§△	800nØ			1.7uØ	100 §Ø	5.0 Ø	2.5 Ø	10 △	800m			N	Si	150A	TO3	CØ
71	2N5157	2.80M§△	800nØ		1.7uØ		100 §	5.0 Ø	2.5 Ø	10 △	.71	150p☑		N	Si	150J	TO3	CØ
72#	2SA208H	3.00M			350n	350n	120m	.30 Ø	200m	40				P	Ge	85J	TO5	
73#	2SC89H	3.00M				.10n	120m	.20 Ø	20mØ	20 △				N	Ge	85J	TO5	
74	TIP32	3.00M§△	170nØ			500nØ	40 Ø	4.0 Ø	3 Ø	8.0 #△				PD	Si	150J	X75b	BØ
75	TIP32A	3.00M§△	170nØ			500nØ	40 Ø	4.0 Ø	3 Ø	8.0 #△				PD	Si	150J	X75b	BØ
76	TIP30	3.00M§△	250nØ			900nØ	30 Ø	4.0 Ø	1 Ø	10 #△				PD	Si	150J	X75b	BØ
77	TIP30A	3.00M§△	250nØ			900nØ	30 Ø	4.0 Ø	1 Ø	10 #△				PD	Si	150J	X75b	BØ
78	TIP29	3.00M§△	350nØ			1.1uØ	30 Ø	4.0 Ø	1 Ø	10 #△				ND	Si	150J	X75b	BØ
79	TIP29A	3.00M§△	350nØ			1.1uØ	30 Ø	4.0 Ø	1 Ø	10 #△				ND	Si	150J	X75b	BØ
80	TIP34	3.00M§△	350nØ			800nØ	80 Ø	4.0 Ø	3 Ø	12 #△				PD	Si	150J	X86	BØ
81	TIP34A	3.00M§△	350nØ			800nØ	80 Ø	4.0 Ø	3 Ø	12 #△				PD	Si	150J	X86	BØ
82#	2SA208	3.00M	440n		350n	350n	120m	.30	200m	100 ☑		25p		P	Ge	85	TO5	
83#	2SC89	3.00M	450n		200n	180n	120m	.20	20m	100 ☑		25p		N	Ge	85	TO5	
84#	2SC179	3.00M	450n		200n	180n	120m	.20 Ø	20m	100 ☑		25p		N	Ge	85	TO1	
85	TIP31	3.00M§△	450nØ			650nØ	40 Ø	4.0 Ø	3 Ø	8.0 #△				ND	Si	150J	X75b	BØ
86	TIP31A	3.00M§△	450nØ			650nØ	40 Ø	4.0 Ø	3 Ø	8.0 #△				ND	Si	150J	X75b	BØ
87	TIP33	3.00M§△	450nØ			350nØ	80 Ø	4.0 Ø	3 Ø	12 #△				ND	Si	150J	X86	BØ
88	TIP33A	3.00M§△	450nØ			350nØ	80 Ø	4.0 Ø	3 Ø	12 #△				ND	Si	150J	X86	BØ
89	TIP36	3.00M§△	450nØ			550nØ	90 Ø	4.0 Ø	15mØ	10 #△				PD	Si	150J	X86	BØ
90	TIP36A	3.00M§△	550nØ			550nØ	90 Ø	4.0 Ø	15mØ	10 #△				PD	Si	150J	X86	BØ
91	TIP35	3.00M§△	600nØ			800nØ	90 Ø	4.0 Ø	15mØ	10 #△				ND	Si	150J	X86	BØ
92	TIP35A	3.00M§△	600nØ			800nØ	90 Ø	4.0 Ø	15mØ	10 #△				ND	Si	150J	X86	BØ
93	2N1302	3.00M△	700n	120n	500n	800n	150m	1.0 Ø	10m	50	20	20p☑		N-A	Ge	100S	TO5	A§
94	2N1993	3.00M△	700nt	120nt	500nt	800nt	150m	1.0 Ø	10m	50 △	20	20p☑		N	Ge	100J	TO5	AØ
95	DTS423M	3.00M§△	800nØ		1.7uØ		100 Ø	5.0 Ø	2.5mØ	10 △	.80			N-D	Si	150J	TO3	CØ
96	JAN2N426	3.00M△	1050nØ			1.1uØ	150m	250mØ	1.0mA	60 ☑	400m	20p☑		P	Ge	100S	TO5	A
97#	2SD80	3.00M	1200nt	120nt	2.0ut	2.5ut	50 Ø	4.0 Ø	1 Ø	60 ☑	.50			N-D	Si	150J	TO3	CØ
98#	2SD81	3.00M	1200nt	120nt	2.0ut	2.5ut	50 Ø	4.0 Ø	1 Ø	60 ☑	.50			N-D	Si	150J	TO3	CØ
99#	2SD82	3.00M	1200nt	120nt	2.0ut	2.5ut	50 Ø	4.0 Ø	1 Ø	60 ☑	.50			N-D	Si	150J	TO3	CØ
100#	2SD83	3.00M	1200nt	120nt	2.0ut	2.5ut	50 Ø	4.0 Ø	1 Ø	60 ☑	.50			N-D	Si	150J	TO3	CØ
101#	2SD84	3.00M	1200nt	120nt	2.0ut	2.5ut	50 Ø	4.0 Ø	1 Ø	60 ☑	.50			N-D	Si	150J	TO3	CØ
102#	NKT126	3.00M△	2000n		2.0u	750n	75m	1.0 Ø	25mØ	50 △	8.0	22p☑		P	Ge	75J	TO5	A
103	2N356	3.00M§	2100nØ		700n	2.0u	100m	.25 Ø	100mØ	30		14p		N	Ge	85S	TO5	A§
104	2N679	3.00M	3000n				150m	.50 Ø	3.0m	30 †				N-A	Ge	85J	R5	
105▼	JAN2N3772	3.0M§☑	8.0uØ			10uØ	150 Ø	4.0 Ø	10 Ø	10 #△		1.2n☑		N	Si	200J	TO3	CØ
106▼	JAN2N3771	3.0M§☑	10uØ			12uØ	150 Ø	4.0 Ø	15 Ø	10 #△		1.2n☑		N	Si	200J	TO3	CØ
107	2N1353	3.50M	600nt	230nt	400nt	350nt	200m	1.0 Ø	10m	70	4.0	12p	150nt	P-A	Ge	85J	TO5	A
108#	2SC34	3.50M§△	1000n		1.0u	400n	140m	0.0	200m	30				N-A	Ge	75	R9	
109#	2SD90	3.50M	2000n	70n	1.4u	1.8u	20 Ø	4.0 Ø	1 Ø	40	.50			N-D	Si	150J	TO9	
110#	2SD91	3.50M	2000n	70n	1.4u	1.8u	20 Ø	4.0 Ø	1 Ø	40	.50			N-D	Si	150J	TO9	

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	MAT	MAX. TEMP (°C)	DWG. No.	LEAD CONFIG.
1#	2SD92	3.50M	2000n	70n	1.4u	1.8u	20 Ø	4.0 Ø	1 Ø	40	.50			N-D	Si	150J	TO9	
2#	2SD93	3.50M	2000n	70n	1.4u	1.8u	20 Ø	4.0 Ø	1 Ø	40	.50			N-D	Si	150J	TO9	
3#	2SD94	3.50M	2000n	70n	1.4u	1.8u	20 Ø	4.0 Ø	1 Ø	40	.50			N-D	Si	150J	TO9	
4	2N438	3.75M	700n				100m	1.0 Ø	50m	25 †		9.0p	2.0n†	N-A	Ge	85J	TO5	A
5#	2SA212H	4.00M			320n	130n	120m	.30 Ø	100mØ	60		20p		P	Ge	85J	TO5	
6	2N1518	4.00M†	50n			20n	50m	4.0 Ø	15m	15 Δ	.03			P-A	Ge	100J	TO36	CØ
7	2N1520	4.00M†	50n			25n	50m	4.0 Ø	15m	17 Δ	.02			P-A	Ge	100J	TO36	CØ
8	2N1522	4.00M†	50n			30n	50m	4.0 Ø	15m	37	.01			P-A	Ge	100J	TO36	CØ
9	2N2930	4.0M§Δ	73n	350n		73n	250m	.60 Ø	100mØ	50 Δ	2.5	20pØ		P	Ge	100S	TO5	A
10	2N1519	4.00M†	80n			20n	50m	4.0 Ø	15m	15 Δ	.03			P-A	Ge	100J	TO36	CØ
11	2N1521	4.00M†	80n			25n	50m	4.0 Ø	15m	17 Δ	.02			P-A	Ge	100J	TO36	CØ
12	2N1523	4.00M†	80n			30n	50m	4.0 Ø	15m	37	.01			P-A	Ge	100J	TO36	CØ
13	2N4877	4.00M§Δ	100n		1.5u	500n	10 Ø	2.0 Ø	1.0mØ	30 Δ#				N	Si	200J	TO39	AØ
14	MPS404	4.00MΔ	190n†	75n†	155n†	230n†	310m	150mØ	12mØ	400 Ø	12			P-AN	Si	135J	TO92	A
15	MPS404A	4.00MΔ	190n†	75n†	155n†	230n†	310m	150mØ	12mØ	400 Ø	12			P-AN	Si	135J	TO92	A
16	DTS410	4.00M§	300n†Ø		650n†	550n†	80 Ø	5.0 Ø	2.5 Ø	10 Δ	800m			N-ME	Si	150J	TO3	CØ
17	DTS424	4.00M§	300n†		650n†	200n†	100 Ø	5.0 Ø	2.5 Ø	10 Δ	.80			N-D	Si	150J	TO3	AØ
18	DTS425	4.00M§	300n†		650n†	200n†	100 Ø	5.0 Ø	2.5 Ø	10 Δ	.80			N-D	Si	150J	TO3	AØ
19#	ASY27	4.00MΔ	350n	75n	1.5u	620n	150m	0.0	20m	50 Δ		16pØ		P	Ge	85J	TO5	
20	2N4398	4.00M§Δ	400n		1.5u	600n	.20mØ	2.0 Ø		40 #Ø				P	Si	200J	MD6d	AØ
21	2N4399	4.00M§Δ	400n		1.5u	600n	.20mØ	2.0 Ø	1 Ø	40 #Ø				P	Si	200J	MD6d	CØ
22#	2SA212	4.00M	400n		400n	200n	120m	.30	100m	120 Ø		20p		P	Ge	85	TO5	
23	DTS430	4.00M§	400n		450n	350n	125 Ø	5.0 Ø	3.5 Ø	10 Δ	.36			N-D	Si	150J	TO3	CØ
24	DTS431	4.00M§	400n		450n	350n	125 Ø	5.0 Ø	3.5 Ø	10 Δ	.28			N-D	Si	150J	TO3	CØ
25	2N3713	4.00M§Δ	450n†		300n†	400n†	150 Ø	2.0 Ø	1 Ø	25 Δ				N	Si	200J	TO3	CØ
26	2N3714	4.00M§Δ	450n†		300n†	400n†	150 Ø	2.0 Ø	1 Ø	25 Δ				N	Si	200J	TO3	CØ
27	2N3715	4.00M§Δ	450n†		300n†	400n†	150 Ø	2.0 Ø	1 Ø	50 Δ				N	Si	200J	TO3	CØ
28	2N3716	4.00M§Δ	450n†		300n†	400n†	150 Ø	2.0 Ø	1 Ø	50 Δ				N	Si	200J	TO3	CØ
29#	ASY26	4.00MΔ	490n	90n	1.3u	730n	150m	0.0	20m	30 Δ		16pØ		P	Ge	85J	TO5	
30#	ASY28	4.00M§Δ	490n	90n	1.3u	730n	125m	0.0	20m	30 Δ		16pØ		N-A	Ge	75J	TO5	
31	ASY73	4.00M§Δ	500n	75n	350n	350n	500m	0.0	.05m	25 Δ				N-A	Ge	85J	TO5	
32▼	DTS103	4.0M§Δ	550n†		1.0u†	350n†	125 Ø	1.5 Ø	5.0 Ø	20 Δ	180m			N-DM	Si	150J	TO3	CØ
33♦	DTS104	4.0M§Δ	550n†		1.0u†	350n†	125 Ø	1.5 Ø	5.0 Ø	50 Δ	150m			N-DM	Si	150J	TO3	CØ
34▼	DTS105	4.0M§Δ	550n†		1.0u†	350n†	125 Ø	1.5 Ø	5.0 Ø	20 Δ	180m			N-DM	Si	150J	TO3	CØ
35▼	DTS106	4.0M§Δ	550n†		1.0u†	350n†	125 Ø	1.5 Ø	5.0 Ø	20 Δ	180m			N-DM	Si	150J	TO3	CØ
36▼	DTS107	4.0M§Δ	550n†		1.0u†	350n†	125 Ø	1.5 Ø	5.0 Ø	20 Δ	180m			N-DM	Si	150J	TO3	CØ
37	2N4395	4.00M§Δ	800nØ		1.5uØ		63 Ø	1.0 Ø	1.0 Ø	75 Δ	.18			N	Si	150J	TO3	CØ
38	2N5241	4.00M§	800nØ			1.7uØ	125 Ø	5.0 Ø	3.5 Ø	10 Δ	600m			N-D	Si	150J	TO3	
39	2N4396	4.00M§Δ	1000nØ		2.0uØ		63 Ø	1.0 Ø	1.0 Ø	60 Δ	.18			N	Si	150J	TO3	CØ
40	2N425	4.00M	1050nØ			1.2uØ	170m	250mØ	1.0mΔ	30	3.2	14p	50n	P-FA	Ge	85J	TO5	A
41	2N404A	4.00MΔ	1400n				150m	30 Ø	24m	24 Δ	12	20pØ		P-A	Ge	100A	TO5	A§
42	ASY31	4.00M§Δ	2200nØ		1.4u		125m	0.0	20m	80 Ø	20	16p§		P-A	Ge	75J	R9	
43	JAN2N3055	4.00M§Δ	6.0uØ			8.0uØ	117 Ø	4.0 Ø	4.0mØ	15 Δ#		700pØ		N	Si	200J	TO3	CØ
44	2N395	4.50M	550n	210n	500n	400n	200m	1.0 Ø	10m	85	4.0	12p	130n†	P-A	Ge	100S	TO5	A§
45	2N1354	4.50M	550n†	210n†	500n†	400n†	200m	1.0 Ø	10m	70	4.0	12p	130n†	P-A	Ge	85J	TO5	A
46#	2SC35	4.50M§Δ	1000n		1.0u	400n	140m	0.0	200m	65				N-A	Ge	75	R9	
47#	2SA209H	5.00M			400n	250n	120m	.30 Ø	200m	65				P	Ge	85J	TO5	
48#	2SC90H	5.0M				180p	120m	300mØ	200mØ	20 Δ				N	Ge	85J	TO5	
49	2N658	5.00M	100n†	32n†	70n†	144n†	210m	350mØ	50mØ	50	1.3	12p	60n†	P-FA	Ge	100J	TO5	A
50#	NKT135	5.00M	280n		800n	450n	150m	.35 Ø	200mØ	15 Δ	20	20pØ		P	Ge	85J	TO5	A
51	2N2946	5.00M	300n		150n	300n	400m	6.0 Ø	200uΔ	200	20	9.0p		P-DE	Si	200J	TO46	A
52#	2SA40	5.00M	300n†		400n†	200n†	80m	6.0 Ø	1.0m	65 †	12	10p		P-A	Ge	85J	TO1	
53	DTS411	5.00M§	300n		650n	200n	100 Ø	5.0 Ø	2.5 Ø	10 Δ	.80			N-D	Si	150J	TO3	CØ
54	DTS423	5.00M§	300n†Ø		550n†	550n†	100 Ø	5.0 Ø	2.5 Ø	10 Δ	800m			N-ME	Si	150J	TO3	CØ
55	2N585	5.00M	350n	50n	250n	200n	120m	.20 Ø	20m	40	10	12p	17n†	N-A	Ge	71A	TO9	A
56	2N1892	5.00MΔ	350n	150n	1.2u	650n	150m	1.0 Ø	10mØ	40 Δ	2.0	20pØ		P	Ge	85J	TO5	A§
57#	2SA209	5.00M	350n		400n	250n	120m	.30	200m	120 Ø		25p		P	Ge	85	TO5	
58#	2SC90	5.00M	400n		200n	180n	120m	.30	200m	120 Ø		25p		N	Ge	85	TO5	
59#	2SC180	5.00M	400n		200n	180n	120m	.30 Ø	200m	120 Ø		25p		N	Ge	85	TO1	
60	2N1304	5.00MΔ	450n	100n	500n	600n	150m	1.0 Ø	10m	70	20	20pØ		N-A	Ge	100S	TO5	A§
61#	NKT734	5.00M	450n		500n	600n	150m	.35 Ø	2 Ø	15 Δ	20	20pØ		N	Ge	85J	TO5	A
62	2N396A	5.00M	650n	200n	800n	400n	200m	.35 Ø	200mØ	15 Δ	4.0	20pØ		P	Ge	100S	TO5	A§
63	JAN2N427	5.00MΔ	850nØ			1.1uØ	150m	250mØ	1.0mΔ	90 Ø	600m	20pØ		P	Ge	100S	TO5	A
64	2N578	5.00M	900nØ		600nØ		120m		400m	15	.75			P-A	Ge	71A	TO5	A
65#	AU105	5.00M§	900n	100n	7.0u	2.0u	27.	2.0 Ø	1 Ø	140				P	Ge	100J	TO3	
66	GT123	5.00MΔ	900n				150m	1.0 Ø	10m	90 †		15p		P-A	Ge	100S	TO5	
67	2N1681	5.00MΔ	950nØ		950nØ		180m	.25 Ø	10m	75	10	20pØ		P-A	Ge	100J	TO5	A
68	2N315	5.00M	1000n	300n	400n	80n	150m	.20 Ø	100m	20		14p		P-A	Ge	100S	TO5	A
69	2N315A	5.00M	1200nØ		600n	1.0u	150m	.20 Ø	100m	35		14p		P-A	Ge	100S	TO5	A
70	2N459	5.00M†	25u			40u	50 Ø	2.0 Ø	2.0m	20 Δ	.50			P-A	Ge	100J	TO3	CØ
71#	SFT226	5.50M§	150nØ			150nØ	150m	500mØ	10mØ	25 Δ	18			P-A	Ge	85J	TO5	A
72#	2SA414	5.50M§	270n	50n	850n	450n	150m	.50 Ø	100mØ	30				P-A	Ge	85J	TO5	
73#	2SC128	5.50M§	270n	50n	850n	450n	125m	.50 Ø	100mØ	30				N-A	Ge	75J	TO5	
74	ASY74	6.00M§Δ	300n	55n	400n	200n	500m	0.0	.05m	40 Δ				N-A	Ge	85J	TO5	
75#	ASY29	6.00M§Δ	350n	75n	1.5u	620n	125m	0.0	20m	50 Δ		16pØ		N-A	Ge	75J	TO5	
76	DTS413	6.00M§	400n†Ø		550n†	550n†	75 Ø	5.0 Ø	1.0 Ø	15 Δ	1.6			N-ME	Si	150J	TO3	CØ
77	2N357	6.00M§	1300nØ		700n	1.2u	100m	.25 Ø	200mØ	30		14p		N	Ge	85S	TO5	A§
78#	ASY32	6.00M§Δ	2200nØ		1.4u		125m	0.0	20m	150 Ø	20	16p§		P-A	Ge	75J	R9	
79	2N377	6.00M	2500n		700n	1.0u	150m	.50 Ø	30m	40		15p		N-A	Ge	100J	TO5	A
80	2N377A	6.00M	2500nØ		700n	1.0u	150m	1.0 Ø	30mØ	60 Ø		20pØ		N	Ge	100J	TO5	A§
81	JAN2N2034	6.00M§Ø	3.0uØ			6.0uØ	7.5 Ø	4.0 Ø	2.0mØ	10 Δ#		200pØ		N	Si	200A	TO5	AØ
82	JAN2N2858	6.00M§Ø	3.0uØ			6.0uØ	7.5 Ø	4.0 Ø	2.0mØ	10 Δ#		200pØ		N	Si	200A	TO5	AØ
83	JAN2N2859	6.00M§Ø	3.0uØ			6.0uØ	7.5 Ø	4.0 Ø	2.0mØ	10 Δ#		200pØ		N	Si	200A	TO5	AØ
84	JAN2N2911	6.00M§Ø	3.0uØ			6.0uØ	7.5 Ø	4.0 Ø	2.0mØ	10 Δ#		200pØ		N	Si	200A	TO5	AØ
85	2N1090	7.00M	250n	50n	200n	150n	120m	.20 Ø	20m	50	10	17p		N-A	Ge	85A	TO9	A
86	2N1000	7.00MΔ	700n		700n	300n	150m	.50 Ø	100m	35		14p		N-A	Ge	100S	TO5	A
87	2N1344	7.00MΔ	1000n	60n	500n	800n	150m	1.0 Ø	20m	90		12p	90n†	P-A	Ge	85J	TO5	A
88#	NKT125	7.00MΔ	1000n		2.0u	600n	100mØ	1.0 Ø	25mØ	50 Δ	8.0	22pØ		P	Ge	75J	TO5	A
89	JAN2N1119	7.20M§Δ	270nØ			370nØ	150m	500mØ	15mØ	15 Δ	30	9.0pØ	5.0n	PØ	Si	140S	TO5	A
90#	SFT227	7.50M§	130nØ			130nØ	150m	500mØ	10mØ	35 Δ	15			P-A	Ge	85J	TO5	A
91	2N662	8.00M	121n†	37n†	106n†	140n†	210m	.35 Ø	50m	70	1.2	12p	65n†	P-A	Ge	100J	TO5	A
92#	2SA415	8.00M§	220n	45n	880n	420n	150m	.50 Ø	100mØ	45				A	Ge	85J	TO5	
93#	2SC129	8.00M§	220n	45n	880n	420n	125m	.50 Ø	100mØ	45				N-A	Ge	75J	TO5	
94	2N600	8.00M§	240n		900n	330n	750mØ	1.0 Ø	100mØ	125 †				P-A	Ge	100J	MT60	
95	2N396	8.00M	400n	190n	600n	310n	150m	.35 Ø	200mØ	15 Δ	4.0	12p		P	Ge	100S	TO5	A§
96	2N579	8.00M	400nØ		500nØ		120m		400m	30	.75			P-A	Ge	71A	TO5	A
97	2N1355	8.00M	400n†	190n†	600n†	310n†	200m	1.0 Ø	10mØ	80	4.0	12p	140n†	P-A	Ge	85J	TO5	A
98	2N1356	8.00M	400n†	190n†	600n†	310n†	200m	1.0 Ø	10m	80	4.0	12p	140n†	P-A	Ge	100J	TO5	
99#	2SA139	8.00M	400n†		800n†	600n†	80m	1.0 Ø	50mØ	70 †		10p	150n†	P-A	Ge	85J	TO1	
100	2N123	8.00M	450n	180n	900n	350n	150m	1.0 Ø	10m	75	20	12p	90n†	P-A	Ge	85S	R32	
101	2N388	8.00M	600n				150m	.50 Ø	30m	150 †		15p		N-A	Ge	100J	TO5	A§
102	2N1624	8.00M	600n				150m	500mØ	30mØ	120		24p		N-A	Ge	100J	TO5	
103	2N388A	8.00M	1000nØ		700n	700n	150m	.50 Ø	30mØ	180 Ø		20pØ		N	Ge	100J	TO5	A§
104	2N576A	8.00M	1000n				200m	.40 Ø	400m	30 †		15p		N-A	Ge	100J	TO5	A§
105	2N576	8.00M	2000n		1.0u	1.0u	200m	.40 Ø	400m	30		15p		N-A	Ge	100J	TO5	A§
106	2N581	8.00M	2400n▼				150m	.30 Ø	20m	30		12p		P-A	Ge	85A	TO5	A
107	2N583	8.00M	2400n▼				120m	.30 Ø	20m	30		12p		P-A	Ge	85A	TO1	A
108	2N1694	9.00M	600n	300n	600n	400n	75m	1.0 Ø	2.0m	25	6.5	2.5p		N	Ge	85J	TO5	A
109	2N358	9.00M§	900nØ		1.0u	1.2u	100m	.25 Ø	300mØ	30		14p		N	Ge	85S	TO5	A§
110#	2SC36	9.00M§Δ	1000n		1.0u	400n	140m	0.0	200m	100				N-A	Ge	75	R9	

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	MAT	MAX. TEMP (°C)	DWG. No.	LEAD CONFIG
1#	2SA210H	10.0M			400n	250n	120m	.30 Ø	200m	100				P	Ge	85J	TO5	
2#	2SC91H	10.0M				.10n	120m	.30 Ø	200mØ	20 Δ				N	Ge	85J	TO5	
3	2N659	10.0M	120nt	17nt	67nt	128nt	210m	350mØ	50mØ	70	1.3	12p	65nt	P-FA	Ge	100J	TO5	A
4	2N599	10.0M§Δ	175n		1.0u	185n	250m	1.0 Ø	200mØ	75 †Δ		20pⓏ		P	Ge	100J	TO5	AØ
5	JAN2N599	10.0M	175n		1.0u	185n	250m	1.0 Ø	200mØ	300 Ⓩ	20	20pⓏ		P	Ge	100S	TO5	AØ
6	2N601	10.0M§Δ	175n		1.0u	185n	750mØ	1.0 Ø	200mØ	125	2.0	15p		P-A		100J	MT60	
7#	2SA210	10.0M	200n		400n	150n	120m	.30	200m	150 Ⓩ		25p		P	Ge	85	TO5	
8	ASY75	10.0M§Δ	200n	50n	450n	150n	500m	0.0	.05m	65 Δ				N-A	Ge	85J	TO5	
9#	NKT137	10.0M	200n		800n	350n	150m	.35 Ø	200mØ	20 Δ	20	20pⓏ		P	Ge	85J	TO5	A
10	2N1306	10.0MΔ	220n	80n	500n	450n	150m	1.0 Ø	10m	100	20	20pⓏ		N-A	Ge	100S	TO5	A§
11	2N2945	10.0M	230n		150n	230n	400m	6.0 Ø	200mΔ	200	20	9.0p		P-DE	Si	200J	TO46	A
12	2N598	10.0M	240n		900n	330n	250m	1.0	100m	70 Δ	2.0	20pⓏ		P-A	Ge	100J	TO5	AØ
13	2N440	10.0M	300n				100m	1.0 Ø	50m	70 †		9.0p	3.0nt	N-A	Ge	85J	TO5	A
14	2N821	10.0MΔ	300nt		600nt	200nt	75m	1.0 Ø	50m	70	5.0	9.0p	300nt	N-FA	Ge	85J	u8	
15	2N5050	10M§Δ	300n		3.5u	1.2u	40 Ø	10 Ø	250mØ	25 †Δ		250pⓏ		N	Si	175J	TO66	CØ
16	2N5051	10M§Δ	300n		3.5u	1.2u	40 Ø	10 Ø	250mØ	25 †Δ		250pⓏ		N	Si	175J	TO66	CØ
17	2N5052	10M§Δ	300n		3.5u	1.2u	40 Ø	10 Ø	250mØ	25 †Δ		250pⓏ		N	Si	175J	TO66	CØ
18#	2SC91	10.0M	300n		250n	100n	120m	.30	200m	220 Ⓩ		25p		N	Ge	85	TO5	
19#	2SC181	10.0M	300n		250n	180n	120m	.30 Ø	200m	220 Ⓩ		25p		N	Ge	85	TO1	
20	2N3445	10.0M§Δ	350nØ		2.0u	350n	115 Ø	5.0 Ø	3.0mØ	60 Ⓩ	500m	400pⓏ		N-EA	Si	200J	TO3	CØ
21	2N3446	10.0M§Δ	350nØ		2.0u	350n	115 Ø	5.0 Ø	3.0mØ	60 Ⓩ	500m	400pⓏ		N-EA	Si	200J	TO3	CØ
22	2N3447	10.0M§Δ	350nØ		2.0u	350n	115 Ø	5.0 Ø	5.0mØ	120 Ⓩ	300m	400pⓏ		N-EA	Si	200J	TO3	CØ
23	2N3448	10.0M§Δ	350nØ		2.0u	350n	115 Ø	5.0 Ø	5.0mØ	120 Ⓩ	300m	400pⓏ		N-EA	Si	200J	TO3	CØ
24	2N3487	10M§Δ	350nØ		2.0u	350n	115 Ø	5.0 Ø	500mØ	20 Δ	4.0	550pⓏ		N	Si	200C	TO61	
25	2N3488	10M§Δ	350nØ		2.0u	350n	115 Ø	5.0 Ø	500mØ	20 Δ	4.0	550pⓏ		N	Si	200C	TO61	
26	2N3489	10M§Δ	350nØ		2.0u	350n	115 Ø	5.0 Ø	500mØ	20 Δ	4.0	550pⓏ		N	Si	200C	TO61	
27	2N3490	10M§Δ	350nØ		2.0u	350n	115 Ø	5.0 Ø	500mØ	40 Δ	3.3	550pⓏ		N	Si	200C	TO61	
28	2N3491	10M§Δ	350nØ		2.0u	350n	115 Ø	5.0 Ø	500mØ	40 Δ	3.3	550pⓏ		N	Si	200C	TO61	
29	2N3492	10M§Δ	350nØ		2.0u	350n	115 Ø	5.0 Ø	500mØ	40 Δ	3.3	550pⓏ		N	Si	200C	TO61	
30	2N2425	10.0MΔ	500nØ		375n	350n	375m	1.0 Ø	25mØ	20 Δ	20	14p		P-A	Si	160S	TO5	
31	2N1317	10.0MΔ	600nØ		800n	600n	200m	.25 Ø	1.0m	85		14p	150nt	P-A	Ge	85J	TO5	A
32	2N5048	10.0M§Ⓩ	600n		1.5u	600n	100	4.0 Ø	.10mØ	15 Δ	.20			N	Si	200S	TO61	AØ
33	2N1345	10.0MΔ	700n	30n	800n	700n	150m	.30 Ø	400m	60		14p	75nt	P-A	Ge	85J	TO5	A
34	2N1346	10.0MΔ	700n	30n	800n	700n	150m	.25 Ø	.35m	125		14p	75nt	P-A	Ge	85J	TO5	A
35#	BC100	10.0M§	700n	500n	900n	500n	2.5 Ø*	20 Ø	10mØ	40	160			N-ME	Si	175J	TO5	AØ
36	JAN2N428	10.0MΔ	800n		600n	500n	150m	350mØ	10mΔ	20 Δ		20pⓏ		P	Ge	85S	TO5	A
37	2N428A	10.0M	850nØ			1.1uØ	150m	.25 Ø	1.0mΔ	80 Δ	1.6	20pⓏ		P-A	Ge	100S	TO5	
38#	2SA371	10.0M	900n		300n	250n	80m	1.5 Ø	10mØ	70	10	10p	110nt	P-A	Ge	85J	TO1	A
39	2N1316	10.0MΔ	1000nØ		800n	1.0u	200m	.25 Ø	1.0m	95		14p	150nt	P-A	Ge	85J	TO5	A
40	2N1969	10.0MΔ	1200nØ		650n	650n	150m	.25	1.0mΔ	200 Ⓩ		20pⓏ	250ntⓏ	P	Ge	85J	TO5	A
41	2N2912	10.0M§Δ	2000n		10u	2.0u	75 Ø	2.0 Ø	1 Ø	150 Δ	.02				Ge	110	TO74	AØ
42	2N4865	10.0M§Δ	2000n		1.5u	500n	350 Ø	5.0 Ø	90 Ø	5.0 #Δ				N	Si	200J	MT69	AØ
43	2N4866	10.0M§Δ	2000n		1.5u	500n	350 Ø	5.0 Ø	90 Ø	5.0 #Δ				N	Si	200J	MT69	AØ
44	2N5250	10.0M§Δ	2000n		1.5u	500n	350 Ø	5.0 Ø	90 Ø	5.0 #Δ				N	Si	200J	MT69	AØ
45	2N5251	10.0M§Δ	2000n		1.5u	500n	350 Ø	5.0 Ø	90 Ø	5.0 #Δ				N	Si	200J	MT69	AØ
46	2N3584	10.0M§Δ	3000n		4.0u	3.0u	35 Ø	2.0 Ø	1 Ø	140 Ⓩ	.75			N	Si	200J	TO66	CØ
47	2N3585	10.0M§Δ	3000n		4.0u	3.0u	35 Ø	2.0 Ø	1 Ø	140 Ⓩ	.75			N	Si	200J	TO66	CØ
48	2N2832	10.0M§Δ	4000n		6.0u	2.5u	85 Ø	2.0 Ø	1.0mØ	50 Δ	25m			P	Ge	110C	TO3	CØ
49	2N2833	10.0M§Δ	4000n		6.0u	2.5u	85 Ø	2.0 Ø	1.0mØ	50 Δ	25m			P	Ge	110C	TO3	CØ
50	2N2834	10.0M§Δ	4000n		6.0u	2.5u	85 Ø	2.0 Ø	1.0mØ	50 Δ	25m			P	Ge	110C	TO3	CØ
51	JAN2N2834	10.0M§Δ	4000n		6.0u	25u	85 Ø	2.0 Ø	10mØ	25 #Δ	150m			P	Ge	110J	MD6e	CØ
52	2N3846	10.0M§Δ	4000nØ			7.0uØ	4.0	3.0 Ø	10	10 Δ	80m	750fⓏ		N	Si	175C	TO63	Ø
53	2N3847	10.0M§Δ	4000nØ			7.0uØ	4.0	3.0 Ø	10	10 Δ	80m	750fⓏ		N	Si	175C	TO63	Ø
54	2N3848	10.0M§Δ	4000nØ			7.0uØ	4.0	4.0 Ø	15	10 Δ	670u	750fⓏ		N	Si	175C	TO63	Ø
55	2N3849	10.0M§Δ	4000nØ			7.0uØ	4.0	4.0 Ø	15	10 Δ	670u	750fⓏ		N	Si	175C	TO63	Ø
56	2N427	11.0M	850nØ			11uØ	170m	250mØ	1.0mΔ	55	2.1	14p	60n	P-FA	Ge	85J	TO5	A
57#	SFT228	12.0M§	110nØ			110nØ	150m	.50 Ø	10mØ	50 Δ	12			P-A	Ge	85J	TO5	A
58	2N397	12.0M	300n	170n	700n	280n	200m	1.0 Ø	10m	95	4.0	12p	160nt	P-A	Ge	100S	TO5	A§
59	2N1357	12.0M	300nt	170nt	700nt	280nt	200m	1.0 Ø	10mØ	85	4.0	12p	160nt	P-A	Ge	85J	TO5	A
60	2N316A	12.0M	400n	100n	250n	280n	150m	.20 Ø	200m	35 †		14p		P-A	Ge	100S	TO5	A
61	2N316	12.0M	800n	200n	800n	1.0u	150m	.20 Ø	200m	30		14p		P-A	Ge	100S	TO5	A
62	2N1091	13.0M	200n	50n	170n	130n	120m	.20 Ø	20m	70	10	17p		N-A	Ge	85A	TO9	A
63	2N404	13.0M	1400n▼				150m	.20 Ø	24m	40	6.3	12p		P-A	Ge	85A	TO5	A§
64#	2SA17H	14.0M			400n	250n	80m	6.0 Ø	1.0m	140		10p		P	Ge	85J	TO1	
65#	2SA18H	14.0M			400n	250n	80m	6.0 Ø	1.0m	140		10p		P	Ge	85J	TO1	
66#	2SA217H	14.0M			320n	130n	120m	.30 Ø	100mØ	60		20p		P	Ge	85J	TO5	
67	2N1808	14.0M	120n▼				150m	.25 Ø	20mØ	125		13p		N-A	Ge	85J	TO5	A§
68	2N859	14.0M§	200n		100n	150n	150m	.50 Ø	5.0mØ	35 †		5.0p		P-A	Si		TO18	A
69	2N860	14.0M§	200n		100n	150n	150m	.50 Ø	5.0mØ	20 †		5.0p		P-A	Si		TO18	A
70	2N862	14.0M§	200n		100n	200n	150m	.50 Ø	5.0mØ	20 †		5.0p		P-A	Si		TO18	A
71	2N858	14.0M§	250n		100n	200n	150m	.50 Ø	5.0mØ	20 †		5.0p		P-A	Si		TO18	A
72#	2SA217	14.0M	300n	25n	400n	150n	120m	.30	100m	120 Ⓩ		20p		P	Ge	85	TO5	
73	2N1605	14.0M	1400n▼				150m	.25 Ø	20mØ	125		13p		N-A	Ge	100J	TO5	A
74#	AU103	15.0M§			3.0u	1.7u	10m♦Ø	1.0 Ø	10 Ø	15	.70			PDA	Ge	90J	TO3	
75	2N660	15.0M	98nt	27nt	69nt	133nt	210m	350mØ	50mØ	90	750m	12p	70nt	P-FA	Ge	100J	TO5	A
76#	SFT298	15.0M	100nØ			1.4uØ	150m	.45 Ø	350mØ	35 Δ		25pⓏ		N-A	Ge	85J	TO5	A§
77	2N4007	15.0M§Δ	120n	60n	320n	120n	400m					10p$Ⓩ			Si	200	TO46	AØ
78	2N4008	15.0M§Δ	120n	60n	320n	120n	400m					10p$Ⓩ			Si	200	TO46	AØ
79#	BCY92	15.0M§	140nt	40nt	200nt	140nt	350m	6.0 Ø	1.0mØ	60	10	4.0p$		P-PEⓏ	Si	150J	TO18	AØ
80#	BCY92B	15.0M§	140nt	40nt	200nt	140nt	400m	6.0 Ø	1.0mØ	60	10	4.0p$		P-PEⓏ	Si	150J	TO5	AØ
81#	BCY95	15.0M§	140nt	40nt	200nt	140nt	350m	6.0 Ø	1.0mØ	60	10	4.0p$		P-PEⓏ	Si	150J	TO18	AØ
82#	BCY95B	15.0M§	140nt	40nt	200nt	140nt	400m	6.0 Ø	1.0mØ	60	10	4.0p$		P-PEⓏ	Si	150J	TO5	AØ
83#	TCH98	15.0M§	140nt	40nt	200nt	140nt	350m	6.0 Ø	1.0mØ	115	10	4.0p$		P-PEⓏ	Si	150J	TO18	AØ
84#	TCH98B	15.0M§	140nt	40nt	200nt	140nt	400m	6.0 Ø	1.0mØ	115	10	4.0p$		P-PEⓏ	Si	150J	TO5	AØ
85#	TCH99	15.0M§	140nt	40nt	200nt	140nt	350m	6.0 Ø	1.0mØ	115	10	4.0p$		P-PEⓏ	Si	150J	TO18	AØ
86#	TCH99B	15.0M§	140nt	40nt	200nt	140nt	400m	6.0 Ø	1.0mØ	115	10	4.0p$		PPEⓏ S	i	150J	TO5	AØ
87	2N2944	15.0M	175n		150n	175n	400m	6.0 Ø	200mΔ	200	20	9.0p		P-DE	Si	200J	TO46	A
88	2N580	15.0M	200nØ		400nØ		120m	.30 Ø	400m	45	.75			P-A	Ge	71A	TO5	
89	2N4150	15.0M§Δ	200n		2.0u	200n	5.0 Ø	5.0 Ø	5.0 Ø	40 #Δ				N	Si	200J	TO5	AØ
90#	2SA64	15.0M	200nt		350nt	150nt	80m	6.0 Ø	1.0m	65 †	8.3	10p		P-A	Ge	85J	TO1	
91	2N1308	15.0MΔ	220n	80n	500n	400n	150m	1.0 Ø	10m	150	20	20pⓏ		N-A	Ge	100S	TO5	A§
92	2N2424	15.0M	300nØ		300n	200n	375m	1.0 Ø	25mØ	25 Δ	20	14p		P-A	Si	160S	TO5	A
93	JAN2N3584	15.0M§Δ	300nØ			700nØ	2.5m	10 Ø	100mØ	40 Δ		120pⓏ		N	Si	200J	TO66	C
94	JAN2N3585	15.0M§Δ	300nØ			700nØ	2.5m	10 Ø	100mØ	40 Δ		120pⓏ		N	Si	200J	TO66	C
95#	2SA138	15.0M	300nt		500nt	400nt	80m	1.0 Ø	10mØ	70 †	4.0	10p	150nt	P-A G	e	85J	TO1	
96	2N4240	15.0M§Δ	500n		6.0u	3.0u	35 Ø	2.0 Ø	75mΔ	6.0 Δ	1.3			N	Si	200	TO66	CØ
97#	NKT124	15.0MΔ	500n		2.0u	300n	100mØ	1.0 Ø	25mØ	50 Δ	8.0	22pⓏ		P	Ge	75J	TO5	A
98	2N2541	15.0M	1.5u▼				215m	500mØ	1.0 Ø	20 #Δ	750m			P-FA	Ge	100J	TO5	
99	2N1759	15.0Mt	3500n				28mØ	2.0 Ø	.50m	105	.27			P-A	Ge	95J	MS7	
100	2N1760	15.0Mt	3500n				28mØ	2.0 Ø	.50m	105	.27			P-A	Ge	95J	MS7	
101	2N1755	15.0Mt	4000n				28mØ	2.0 Ø	.50m	52	.23			P-A	Ge	95J	MS7	
102	2N1756	15.0Mt	4000n				28mØ	2.0 Ø	.50m	52	.23			P-A	Ge	95J	MS7	
103	2N1757	15.0Mt	4000n				28mØ	2.0 Ø	.50m	52	.23			P-A	Ge	95J	MS7	
104	2N1758	15.0Mt	4000n				28mØ	2.0 Ø	.50m	52	.23			P-A	Ge	95J	MS7	
105	2N1761	15.0Mt	5000n				28mØ	2.0 Ø	.50m	105	.27			P-A	Ge	95J	MS7	
106	2N1762	15.0Mt	5000n				28mØ	2.0 Ø	.50m	105	.27			P-A	Ge	95J	MS7	
107	2N864A	16.0M§Δ	150n		150n	150n	300m	6.0 Ø	1.0m	350 tⓏ	20	9.0pⓏ		P	Si	200S	TO18	
108#	SFT288	16.0M	190n	35n	60n	200n	150m	350mØ	400mØ	40 Δ	750m	12p		P-AΔ	Ge	85J	TO5	A
109	2N428	17.0M	850nØ			1.1uØ	170m	250mØ	1.0mΔ	80	1.6	14p	70n	P-FA	Ge	85J	TO5	A
110	2N582	18.0M	1200n▼				150m	.20 Ø	24m	60	8.4	12p	1.0n	P-A	Ge	85A	TO5	A

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	DESCRIPTION MAT. T	DESCRIPTION MAX. TEMP (°C)	DWG. No.	LEAD CONFIG.
1	2N584	18.0M	1200n▼				120m	20 Ø	24m	60 †	8.4	12p		P-A	Ge	85A	TO1	A
2	2N1119	20.0M§		175n$			150m	500mØ	15m	25	30	6.0p		P-PA	Si	140S	TO5	A
3	TN63	20.0M§Δ	30n	10n	450n	120n	800m	10 Ø	150mØ	25 Δ				N-PEØ	Si	200J	TO5	A
4	TN64	20.0M§Δ	30n	10n	450n	120n	500m	10 Ø	150mØ	25 Δ				N-PEØ	Si	200J	TO18	A
5	2N661	20.0M	68n†	27n†	56n†	139n†	210m	350mØ	50mØ	120	750m	12p	75n†	P-FA	Ge	100J	TO5	A
6	2N2657	20.0M§Δ	80n		60n	80n	4 $	6.0 Ø	5 Ø	15 Δ#				N	Si	200J	TO5	AØ
7	2N2658	20.0M§Δ	80n		60n	80n	4 $	6.0 Ø	5 Ø	15 Δ#				N	Si	200J	TO5	AØ
8	NS9001	20.0M§Δ	100nØ			250n†	1.2	5.0 Ø	1.0 Ø	30 Δ	600m	70p		N-PL	Si	200J	TO39	AØ
9	NS9002	20.0M§Δ	100nØ			250n†	30 Ø$	5.0 Ø	1.0 Ø	30 Δ	250m	70p		N-PL	Si	200J	MT42	AØ
10	2N730	20.0M	110n†	40n†	140n†	105n†	500m	10 Ø	150m	40	10	35pØ		N-PL	Si	175S	TO18	AØ
11	2N4006	20.0M§Δ	120n	60n	320n	120n	400m					10p$Ø			Si	200	TO46	AØ
12▼#	2SC510O	20M§Δ	130nØ		3.0u	200n	8.0 Ø	2.0 Ø	200mØ	150 Ø	3.0	40pØ		N-DPL	Si	175J	TO39	AØ
13▼#	2SC510R	20M§Δ	130nØ		3.0u	200n	8.0 Ø	2.0 Ø	200mØ	90 Ø	3.0	40pØ		N-DPL	Si	175J	TO39	AØ
14▼#	2SC511O	20M§Δ	130nØ		3.0u	200n	8.0 Ø	2.0 Ø	200mØ	150 Ø	3.0	40pØ		N-DPL	Si	175J	TO39	AØ
15▼#	2SC511R	20M§Δ	130nØ		3.0u	200n	8.0 Ø	2.0 Ø	200mØ	90 Ø	3.0	40pØ		N-DPL	Si	175J	TO39	AØ
16▼#	2SC512O	20M§Δ	130nØ		3.0u	200n	8.0 Ø	2.0 Ø	200mØ	150 Ø	3.0	40pØ		N-DPL	Si	175J	TO39	AØ
17▼#	2SC512R	20M§Δ	130nØ		3.0u	200n	8.0 Ø	2.0 Ø	200mØ	90 Ø	3.0	40pØ		N-DPL	Si	175J	TO39	AØ
18▼#	2SC513O	20M§Δ	130nØ		3.0u	200n	8.0 Ø	2.0 Ø	200mØ	150 Ø	3.0	40pØ		N-DPL	Si	175J	TO39	AØ
19▼#	2SC513R	20M§Δ	130nØ		3.0u	200n	8.0 Ø	2.0 Ø	200mØ	90 Ø	3.0	40pØ		N-DPL	Si	175J	TO39	AØ
20▼#	2SC522O	20M§Δ	130nØ		3.0u	200n	10 Ø	2.0 Ø	200mØ	150 Ø	3.0	25p		N-DPL	Si	175J	MD29	AØ
21▼#	2SC522R	20M§Δ	130nØ		3.0u	200n	10 Ø	2.0 Ø	200mØ	90 Ø	3.0	25p		N-DPL	Si	175J	MD29	AØ
22▼#	2SC523O	20M§Δ	130nØ		3.0u	200n	10 Ø	2.0 Ø	200mØ	150 Ø	3.0	25p		N-DPL	Si	175J	MD29	AØ
23▼#	2SC523R	20M§Δ	130nØ		3.0u	200n	10 Ø	2.0 Ø	200mØ	90 Ø	3.0	25p		N-DPL	Si	175J	MD29	AØ
24▼#	2SC524O	20M§Δ	130nØ		3.0u	200n	10 Ø	2.0 Ø	200mØ	150 Ø	3.0	25p		N-DPL	Si	175J	MD29	AØ
25▼#	2SC524R	20M§Δ	130nØ		3.0u	200n	10 Ø	2.0 Ø	200mØ	90 Ø	3.0	25p		N-DPL	Si	175J	MD29	AØ
26▼#	2SC525O	20M§Δ	130nØ		3.0u	200n	10 Ø	2.0 Ø	200mØ	150 Ø	3.0	25p		N-DPL	Si	175J	MD29	AØ
27▼#	2SC525R	20M§Δ	130nØ		3.0u	200n	10 Ø	2.0 Ø	200mØ	90 Ø	3.0	25p		N-DPL	Si	175J	MD29	AØ
28	2N731	20.0M	140n†	40n†	90n†	130n†	500m	10 Ø	150m	80	10	35pØ		N-PL	Si	175S	TO18	AØ
29	2N3850	20.0M§Δ	150n	50n	700n	200n	30mØ	1.0 Ø	1.0mØ	50 #Δ	1.2	125pØ		N	Si	200C	TO59	AØ
30	2N3851	20.0M§Δ	150n	50n	700n	200n	30mØ	1.0 Ø	1.0mØ	30 #Δ	1.2	125pØ		N	Si	200C	TO59	AØ
31	2N3852	20.0M§Δ	150n	50n	700n	200n	30mØ	1.0 Ø	1.0mØ	50 #Δ	1.2	125pØ		N	Si	200C	TO59	AØ
32	2N3853	20.0M§Δ	150n	50n	700n	200n	30mØ	1.0 Ø	1.0mØ	30 #Δ	1.2	125pØ		N	Si	200C	TO59	AØ
33▼	2N5660	20M	150nØ		850n		10	5.0	1.0 Ø	15	400m	60n		N-PL	Si	200C	TO66	
34▼	2N5661	20M	150nØ		850n		10	5.0	1.0 Ø	15	400m	60n		N-PL	Si	200C	TO66	
35▼	2N5662	20M	150nØ		850n		1.2	5.0	1.0 Ø	15	400m	60n		N-PL	Si	200C	TO5	
36▼	2N5663	20M	150nØ		850n		1.2	5.0	1.0 Ø	15	400m	60n		N-PL	Si	200C	TO5	
37▼	2N5664	20M	150nØ		1.3u		10	5.0	3.0 Ø	15	130m	125n		N-PL	Si	200C	TO66	
38▼	2N5665	20M	150nØ		1.3u		10	5.0	3.0 Ø	15	130m	125n		N-PL	Si	200C	TO66	
39▼	2N5666	20M	150nØ		1.3u		1.2	5.0	3.0 Ø	15	130m	125n		N-PL	Si	200C	TO5	
40▼	2N5667	20M	150nØ		1.3u		1.2	5.0	3.0 Ø	15	130m	125n		N-PL	Si	200C	TO5	
41#	2SC519A	20.0M	200n†	50n†	3.0u†	800n†	50 Ø	5.0 Ø	5.0 Ø	10 Δ	400m	150p		N-DM	Si	150J	TO3	CØ
42#	2SC520A	20.0M	200n†	50n†	3.0u†	800n†	50 Ø	5.0 Ø	5.0 Ø	15 Δ	400m	150p		N-DM	Si	150J	TO3	CØ
43#	2SC521A	20.0M	200n†	50n†	3.0u†	800n†	50 Ø	5.0 Ø	5.0 Ø	15 Δ	400m	150p		N-DM	Si	150J	TO3	CØ
44#	2SC827	20.0M§	200n		2.0u†	200n	700m	4.0 Ø	50mØ	370 *	500m	10p		N-D	Si	175J	TO5	A
45	2N317	20.0M	300n	50n	200n	250n	150m	20 Ø	400m	30 †		14p		P-A	Ge	85S	TO5	A
46	2N317A	20.0M	300n	50n	200n	250n	150m	25 Ø	400m	40 †		14p		P-A	Ge	100S	TO5	A
47	2N2648	20.0M	300n	50n	900n	500n	300m	50 Ø	1 Ø	200 #	.50	22p		P-A	Ge	100	TO5	AØ
48	JAN2N2880	20.0M§Δ	300n	60n	1.7u	300n	30mØ$	5.0 Ø	5.0 Ø	15 Δ#		150pØ		N	Si	200A	ZA30	AØ
49	JAN2N3749	20.0M§Δ	300n	60n	1.7u	300n	30mØ$	5.0 Ø	5.0 Ø	15 Δ#		150pØ		N	Si	200A	MT53	GN
50	JAN2N3375	20.0MΔ	350nØ		200n	200n	125m	5.0 Ø	100mØ	5.0 Δ	150			N	Si	150S	TO5	
51	2N4070	20.0M§Δ	500nØ		1.2u	450n	65 $	5.0 Ø	10 Ø	10 Δ	.15	200pØ		N	Si	200J	TO3	CØ
52	2N4071	20.0M§Δ	500nØ		1.2u	450n	65 $	5.0 Ø	10	10 Δ	.15	200pØ		N	Si	200J	TO3	CØ
53	2N5539	20M§Δ	500n		1.5u	500n	100 Ø	5.0 Ø	10 Ø	25 Δ#				N	Si	200J	TO63	AØ
54	2N5541	20M§Δ	500n	1.5u		500n	5.0 Ø	5.0 Ø	5.0 Ø	30 Δ#				N	Si	200J	TO5	AØ
55	2N5542	20M§Δ	500n	1.5u		500n	50 Ø	5.0 Ø	5.0 Ø	30 Δ#				N	Si	200J	TO61	AØ
56#	BD128	20.0M§	500n	100n	500n	200n	15 Ø*	20	50mØ	50	160			N-ME	Si	175J	MD17b	CØ
57#	2SC728	20.0M§	1000n		8.0u	2.0u	350m	4.0 Ø	10mØ	90		9.0p		N	Si	175J	TO18	
58	JAN2N3713	20.0M§Ø	1.5uØ			2.0uØ	90 $	10 Ø	500mØ	30 †Δ		500pØ		N	Si	200J	TO3	CØ
59	JAN2N3714	20.0M§Ø	1.5uØ			2.0uØ	90 $	10 Ø	500mØ	30 †Δ		500pØ		N	Si	200J	TO3	CØ
60	JAN2N3715	20.0M§Ø	1.5uØ			2.0uØ	90 $	10 Ø	500mØ	30 †Δ		500pØ		N	Si	200J	TO3	CØ
61	JAN2N3716	20.0M§Ø	1.5uØ			2.0uØ	90 $	10 Ø	500mØ	30 †Δ		500pØ		N	Si	200J	TO3	CØ
62	JAN2N3789	20.0M§Ø	1.5uØ			2.0uØ	150 Ø	4.0 Ø	10 Ø	5.0 Δ#		500pØ		P	Si	200A	TO3	CØ
63	JAN2N3790	20.0M§Ø	1.5uØ			2.0uØ	150 Ø	4.0 Ø	10 Ø	5.0 Δ#		500pØ		P	Si	200A	TO3	CØ
64♦	JAN2N3791	20M§Ø	1.5uØ			2.0uØ	90 Ø$	4.0 Ø	10	5.0 #Δ		500pØ		P	Si	200J	TO3	CØ
65♦	JAN2N3792	20M§Ø	1.5uØ			2.0uØ	90 Ø$	4.0 Ø	10	5.0 #Δ		500pØ		P	Si	200J	TO3	CØ
66	2N5540	20M§Δ	1.5u	1.5u		1.5u	50 Ø	5.0 Ø	5.0 Ø	20 Δ#				N	Si	200J	TO61	AØ
67	2N4296	20.0M§Δ	7000nØ		10uØ		20mØ	10 Ø	50mØ	150 Ø		6.0p$Ø			Si	175	TO66	CØ
68	2N4297	20.0M§Δ	7000nØ		10uØ		20mØ	10 Ø	50mØ	300 Ø		6.0p$Ø			Si	175	TO66	CØ
69	2N4298	20.0M§Δ	7000nØ		10uØ		20mØ	10 Ø	50mØ	75 Ø		6.0p$Ø			Si	175	TO66	CØ
70	2N4299	20.0M§Δ	7000nØ		10uØ		20mØ	10 Ø	50mØ	150 Ø		6.0p$Ø			Si	175	TO66	CØ
71	2N864	22.0M§	100n		100n	100n	150m	50 Ø	5.0mØ	35 †		5.0p		P-A	Si		TO18	A
72	2N863	22.0M§	125n		100n	100n	150m	50 Ø	5.0mØ	35 †		5.0p		P-A	Si		TO18	A
73	2N861	22.0M§	150n		100n	150n	150m	50 Ø	5.0mØ	35 †		5.0p		P-A	Si		TO18	A
74	2N865A	24.0M§Δ	100n		150n	100n	300m	6.0 Ø	1.0m	500 †Ø	20	9.0pØ		P	Si	200S	TO18	
75#	2H1256	25.0MΔ	25nØ			40nØ	300m	10	2.0m	25 Δ	30	10pØ		P-ME	Si	175A	TO18	
76#	2H1258	25.0MΔ	25nØ			60nØ	300m	10	2.0m	75 Δ	60	10pØ		P-ME	Si	175A	TO18	
77#	2H1254	25.0MΔ	30n				300m	10	2.0m	25		10pØ		P-ME	Si	175A	TO18	
78	2N1104	25M§Δ	50nØ		20n	80n	125m	3.0 Ø	10mØ	45 †Δ	150	3.0pØ		N	Si	150S	TO43	A
79#	SFT229	25.0M	70nØ			70nØ	150m	500mØ	10mØ	75 Δ	9.0			P-AΔ	Ge	85J	TO5	
80	2N5552-4	25.0M§	100nØ			700nØ	1.5	5.0 Ø	10 Ø	30	1.0	125p		N-PE	Si	200	MT20	
81#	2S033	25.0M§	450nØ	2.0u	2.0uØ	1.0u	4.0	10 Ø	3.0uØ	10 #		120pØ	10n	N-DM	Si	175	TO3	
82#	2S034	25.0M§	450nØ	2.0u	2.0uØ	1.0u	4.0	10 Ø	3.0uØ	25 #		120pØ	10n	N-DM	Si	175	TO3	
83#	2S035	25.0M§	450nØ	2.0u	2.0uØ	1.0u	4.0	10 Ø	3.0uØ	10 #		120pØ	10n	N-DM	Si	175	TO3	
84#	2S036	25.0M§	450nØ	2.0u	2.0uØ	1.0u	4.0	10 Ø	3.0uØ	25 #		120pØ	10n	N-DM	Si	175	TO3	
85#	BLY47	25.0M§	1.0uØ			3.0uØ	40 Ø	10 Ø	1.0 Ø	30 Δ#		200pØ		N-DM	Si	175J	TO3	CØ
86#	BLY47A	25.0M§	1.0uØ			3.0uØ	4.0 Ø#	10 Ø	1.0 Ø	30 Δ#		200pØ		N-DM	Si	175J	TO66	CØ
87#	BLY48	25.0M§	1.0uØ			3.0uØ	40 Ø	10 Ø	1.0 Ø	60 Δ#		200pØ		N-DM	Si	175J	TO3	CØ
88#	BLY48A	25.0M§	1000nØ			3.0uØ	40 Ø	10 Ø	1.0 Ø	60 Δ#		200pØ		N-DM	Si	175J	TO66	CØ
89#	BLY49	25.0M§	1000nØ			3.0uØ	40 Ø	10 Ø	1.0 Ø	30 Δ#		200pØ		N-DM	Si	175J	TO3	CØ
90#	BLY49A	25.0M§	1000nØ			3.0uØ	40 Ø	10 Ø	1.0 Ø	30 Δ#		200pØ		N-DM	Si	175J	TO66	CØ
91#	BLY50	25.0M§	1000nØ			3.0uØ	40 Ø	10 Ø	1.0 Ø	60 Δ#		200pØ		N-DM	Si	175J	TO3	CØ
92#	BLY50A	25.0M§	1000nØ			3.0uØ	40 Ø	10 Ø	1.0 Ø	60 Δ#		200pØ		N-DM	Si	175J	TO66	CØ
93	2N2890	30.0M§Δ					800m	2.0 Ø	100mØ	30 †Δ		70pØ		N-PE S	i	200J	TO5	AØ
94	2N2891	30.0M§Δ					800m	2.0 Ø	100mØ	50 †Δ		70pØ		N-PE S	i	200J	TO5	AØ
95	2N3597	30.0M§Δ		700nØ		2.7uØ	1.0m$	2.0 Ø	.05mØ	75 Δ	.07	700p		N	Si	200	TO63	AØ
96	2N3598	30.0M§Δ		700nØ		2.7uØ	1.0m$	2.0 Ø	.05mØ	75 Δ	.07	700p		N	Si	200	TO63	AØ
97	2N3599	30.0M§Δ		700nØ		2.7uØ	1.0m$	2.0 Ø	.05mØ	75 Δ	.07	700p		N	Si	200	TO63	AØ
98	2N1254	30.0M§Δ	25nØ			40nØ	450m	1.0 Ø	10mØ	50 Ø	30	10pØ		P	Si	200S	TO5	Ø
99	2N1256	30.0M§Δ	25nØ			40nØ	450m	1.0 Ø	10mØ	50 Ø	30	10pØ		P	Si	200S	TO5	Ø
100	2N2008	30.0M	75n†Ø			75n†Ø	800m	50	5.0mØ	65 †	100	7.0p		N-PL	Si	200J	TO5	AØ
101#	2S503	30.0M§Δ	80nØ			5.0uØ	300m	5.0 Ø	10uØ	180 Δ	100	8.0pØ		N-PLØ	Si	175J	TO18	
102	2N5336	30.0M§Δ	100n	100n	2.0u	200n	6 Ø	2.0 Ø	500mØ	20 †#				N	Si	200J	TO39	AØ
103	2N5337	30.0M§Δ	100n	100n	2.0u	200n	6.0 Ø	2.0 Ø	500mØ	40 †Δ#				N	Si	200J	TO39	AØ
104	2N5338	30.0M§Δ	100n	100n	2.0u	200n	6 Ø	2.0 Ø	500mØ	20 †#Δ				N	Si	200J	TO39	AØ
105	2N5339	30.0M§Δ	100n	100n	2.0u	200n	6 Ø	2.0 Ø	500mØ	40 †#Δ				N	Si	200J	TO39	AØ
106	2N5346	30.0M§Δ	100n	100n	2.0u	200n	60 Ø	2.0 Ø	5 Ø	20 Δ		250pØ		N	Si	200J	TO59	A
107	2N5347	30.0M§Δ	100n	100n	2.0u	200n	60 Ø	2.0 Ø	5 Ø	40 Δ		250pØ		N	Si	200J	TO59	A
108	2N5348	30.0M§Δ	100n	100n	2.0u	200n	60 Ø	2.0 Ø	5 Ø	20 Δ		250pØ		N	Si	200J	TO59	A
109	2N5349	30.0M§Δ	100n	100n	2.0u	200n	60 Ø	2.0 Ø	5 Ø	40 Δ		250pØ		N	Si	200J	TO59	A
110♦	2N5427	30M§Δ	100n	100n	2.0u	200n	40 Ø	2.0 Ø	5.0	20 Δ#		250pØ		N	Si	200J	TO66	CØ

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	MAT	MAX. TEMP (°C)	DWG. No.	LEAD CODE
1♦	2N5428	30M§△	100n	100n	2.0u	200n	40 Ø	2.0 Ø	5.0	40 △#		250pØ		N	Si	200J	TO66	CØ
2♦	2N5429	30M§△	100n	100n	2.0u	200n	40 Ø	2.0 Ø	5.0	20 △#		250pØ		N	Si	200J	TO66	CØ
3♦	2N5430	30M§△	100n	100n	2.0u	200n	40 Ø	2.0 Ø	5.0	40 △#		250pØ		N	Si	200J	TO66	CØ
4	2N5477	30.0M§△	100n	100n	2.0u	200n	60 Ø	2.0 Ø	500mØ	30 △#		250p		N	Si	200J	TO59	CØ
5	2N5478	30.0M§△	100n	100n	2.0u	200n	60 Ø	2.0 Ø	500mØ	60 △#		250p		N	Si	200J	TO59	CØ
6	2N5479	30.0M§△	100n	100n	2.0u	200n	60 Ø	2.0 Ø	500mØ	30 △#		250p		N	Si	200J	TO59	CØ
7	2N5480	30.0M§△	100n	100n	2.0u	200n	60 Ø	2.0 Ø	500mØ	60 △#		250p		N	Si	200J	TO59	CØ
8	2N5552	30.0M§△	100nØ			700nØ	15 Ø	5.0 Ø	10mØ	30 △#		150p		N	Si	200J	R113	AØ
9	2852-1	30.0M§	100n	50n	400n	150n	1.0	1.0 Ø	500uØ	15 △	400m	125pØ		N-PL	Si	200A	TO5	AØ
10	2852-2	30.0M§	100n	50n	400n	150n	2.0	1.0 Ø	500uØ	15 △	400m	125pØ		N-PL	Si	200A	TO59	AØ
11	2852-3	30.0M§	100n	50n	400n	150n	1.5	1.0 Ø	500uØ	15 △	400m	125pØ		N-PL	Si	200A	MT32	AØ
12	2856-1	30.0M§	100n	50n	400n	150n	1.0	1.0 Ø	50mØ	15 △	400m	125pØ		N-PL	Si	200A	TO5	AØ
13	2856-2	30.0M§	100n	50n	400n	150n	2.0	1.0 Ø	50mØ	15 △	400m	125pØ		N-PL	Si	200A	TO59	AØ
14	2856-3	30.0M§	100n	50n	400n	150n	1.5	1.0 Ø	50mØ	15 △	400m	125pØ		N-PL	Si	200A	MT35	AØ
15▼	MJ500	30M§△	100n	100n	1.0u	150n	60 Ø	2.0 Ø	5.0 Ø	15 △#		300pØ		P	Si	200J	TO59	AØ
16▼	MJ501	30M§△	100n	100n	1.0u	150n	60 Ø	2.0 Ø	5.0 Ø	15 △#		300pØ		P	Si	200J	TO59	AØ
17▼	MJ6700	30M§△	100n	100n	1.0u	150u	60 Ø	2.0 Ø	5.0 Ø	15 #△		300pØ		P	Si	200J	TO59	A
18▼	MJ6701	30M§△	100n	100n	1.0u	150u	60 Ø	2.0 Ø	5.0 Ø	15 #△		300pØ		P	Si	200J	TO59	A
19▼	MJ8100	30M§△	100n	100n	1.0u	150n	10 Ø	2.0 Ø	5.0 Ø	15 △#		300pØ		P	Si	200J	TO39	A
20▼	MJ8101	30M§△	100n	100n	1.0u	150n	10 Ø	2.0 Ø	5.0 Ø	15 △#		300pØ		P	Si	200J	TO39	A
21	2N2877	30.0M§△	120n		60n	80n	.03m§Ø	5.0 Ø	50mØ	70 †Ø	.25	150pØ		N	Si	200J	MT42	AØ
22	2N2879	30.0M§△	120n		60n	80n	.03m§Ø	5.0 Ø	50mØ	70 †Ø	.25	150pØ		N	Si	200J	MT42	AØ
23	2N3744	30.0M§△	120n		60n	80n	30 Ø	5.0 Ø	5 Ø	10 △		150pØ		N	Si	200J	MT53	G
24	2N3745	30.0M§△	120n		60n	80n	30 Ø	5.0 Ø	5 Ø	10 △		150pØ		N	Si	200J	MT53	G
25	2N3746	30.0M§△	120n		60n	80n	30 Ø	5.0 Ø	5 Ø	10 △		150pØ		N	Si	200J	MT53	G
26	2N2849	30.0M§△	125n	50n	300n	175n	850m	1.0 Ø	500uØ	50 △	400m	125pØ		N-PE	Si	200S	R61	Ø
27	2N2850	30.0M§△	125n	50n	400n	175n	850m	1.0 Ø	500uØ	25 △	250m	125pØ		N-PE	Si	200S	R61	Ø
28	2N2850-1	30.0M§△	125n	50n	400n	175n	850m	1.0 Ø	500uØ	25 △	250m	125pØ		N-PE	Si	200S	TO5	AØ
29	2N2851	30.0M§△	125n	50n	400n	175n	850m	1.0 Ø	500uØ	25 △	400m	125pØ		N-PE	Si	200S	R61	Ø
30	2N2851-1	30.0M§△	125n	50n	400n	175n	850m	1.0 Ø	500uØ	25 △	400m	125pØ		N-PE	Si	200S	TO5	AØ
31	2N2852	30.0M§△	125n	50n	400n	175n	850m	1.0 Ø	500uØ	15 △	400m	125pØ		N-PE	Si	200S	R61	Ø
32	2N2852-1	30.0M§△	125n	50n	400n	175n	850m	1.0 Ø	500uØ	15 △	400m	125pØ		N-PE	Si	200S	TO5	AØ
33	2N2853	30.0M§△	125n	50n	400n	200n	850m	3.0 Ø	5.0	20 △#	300m	125pØ		N-PE	Si	200S	R61	Ø
34	2N2853-1	30.0M§△	125n	50n	400n	200n	850m	3.0 Ø	5.0	20 △#	300m	125pØ		N-PE	Si	200S	TO5	AØ
35	2N2854	30.0M§△	125n	50n	300n	175n	850m	1.0 Ø	50mØ	50 △	400m	125pØ		N-PE	Si	200S	R61	Ø
36	2N2855	30.0M§△	125n	50n	400n	175n	850m	1.0 Ø	50mØ	25 △	400m	125pØ		N-PE	Si	200S	R61	Ø
37	2N2855-1	30.0M§△	125n	50n	400n	175n	850m	1.0 Ø	50mØ	25 △	400m	125pØ		N-PE	Si	200S	TO5	AØ
38	2N2856	30.0M§△	125n	50n	400n	175n	850m	1.0 Ø	50mØ	15 △	400m	125pØ		N-PE	Si	200S	R61	Ø
39	2N2856-1	30.0M§△	125n	50n	300n	175n	850m	1.0 Ø	50mØ	15 △	400m	125pØ		N-PE	Si	200S	TO5	AØ
40	2849-1	30.0M§△	125n	50n	300n	175n	1.0	1.0 Ø	500uØ	50 △	400m	125pØ		N-PE	Si	200S	TO5	Ø
41	2849-2	30.0M§△	125n	50n	300n	175n	2.0	1.0 Ø	500uØ	50 △	400m	125pØ		N-PE	Si	200S	TO59	Ø
42	2849-3	30.0M§△	125n	50n	300n	175n	1.5	1.0 Ø	500uØ	50 △	400m	125pØ		N-PE	Si	200S	MT32	Ø
43	2N5658	30.0M§△	150nØ			800nØ	30	2.0 Ø	500mØ	40 △#		150pØ		N	Si	200J	TO59	AØ
44	2N5659	30.0M§△	150nØ			800nØ	30	2.0 Ø	500mØ	40 △#		150pØ		N	Si	200J	TO111	G
45	2N5316	30.0M§△	200n		1.0u	200n	50 Ø	5.0 Ø	10 Ø	10 #△		500p		N	Si	200J	TO61	A
46	2N5318	30.0M§△	200n		1.0u	200n	50 Ø	5.0 Ø	10 Ø	10 #△		500p		P	Si	200J	TO61	A
47▼	2N5729	30M§	200n		3.0u	500n	10 Ø#	2.0 Ø	2.0 Ø	150 #		150pØ		N-PE	Si	200J	TO5	AØ
48▼	2N5730	30M§	200n		3.0u	500n	45 Ø#	2.0 Ø	2.0 Ø	150 #		150pØ		N-PE	Si	200J	TO59	A
49	SDT3105	30.0M§△	200n		1.0u	200n	3.0 Ø	5.0 Ø	5.0 Ø	90 Ø#		500pØ		P-PE	Si	200J	TO61	A
50	SDT3106	30.0M§△	200n		1.0u	200n	3.0 Ø	5.0 Ø	5.0 Ø	90 Ø#		500pØ		P-PE	Si	200J	TO61	A
51	SDT3107	30.0M§△	200n		1.0u	200n	3.0 Ø	5.0 Ø	5.0 Ø	90 Ø#		500pØ		P-PE	Si	200J	TO61	A
52	SDT3108	30.0M§△	200n		1.0u	200n	3.0 Ø	5.0 Ø	5.0 Ø	90 Ø#		500pØ		P-PE	Si	200J	TO61	A
53	SDT3109	30.0M§△	200n		1.0u	200n	3.0 Ø	5.0 Ø	5.0 Ø	90 Ø#		500pØ		P-PE	Si	200J	TO61	A
54	2N2892	30.0M§△	300nØ		1.5uØ		30 Ø	5.0 Ø	2 Ø	25 #△	.30 #	70pØ			Si	200	TO59	AØ
55	2N2893	30.0M§△	300nØ			1.5uØ	30 Ø	5.0 Ø	2.0 Ø	25 △#	300m#	70pØ			Si	200	TO59	AØ
56▼	2N5731	30M§	300n		3.0u	600n	75 Ø#	2.0 Ø	5.0 Ø	100 #		350pØ		N-PE	Si	200J	TO61	A
57▼	2N5732	30M§	300n		3.0u	600n	75 Ø#	2.0 Ø	5.0 Ø	100 #		350pØ		N-PE	Si	200J	TO3	CØ
58#	BSX62	30.0M§	300nØ			1.5uØ	900m	2.0 Ø	1.0 Ø	60	500m			N-PE	Si	200J	TO39	AØ
59#	BSX63	30.0M§	300nØ			1.5uØ	900m	2.0 Ø	1.0 Ø	60	500m			N-PE	Si	200J	TO39	AØ
60	SDT3205	30.0M§△	300n		1.5u	300n	3.0 Ø	5.0 Ø	5.0 Ø	90 Ø#		500pØ		N-PE	Si	200J	TO61	A
61	SDT3206	30.0M§△	300n		1.5u	300n	3.0 Ø	5.0 Ø	5.0 Ø	90 Ø#		500pØ		N-PE	Si	200J	TO61	A
62	SDT3207	30.0M§△	300n		1.5u	300n	3.0 Ø	5.0 Ø	5.0 Ø	90 Ø#		500pØ		N-PE	Si	200J	TO61	A
63	SDT3208	30.0M§△	300n		1.5u	300n	3.0 Ø	5.0 Ø	5.0 Ø	90 Ø#		500pØ		N-PE	Si	200J	TO61	A
64	SDT3209	30.0M§△	300n		1.5u	300n	3.0 Ø	5.0 Ø	5.0 Ø	90 Ø#		500pØ		N-PE	Si	200J	TO61	A
65	JAN2N338	30.0M△	350nØ		350n	350n	125m	5.0 Ø	100uØ	10 △	150			N	Si	150S	TO5	A
66	2N5317	30.0M§△	400n		1.2u	400n	50 Ø	5.0 Ø	10 Ø	10 #△		500p		N	Si	200J	TO61	A
67	2N5319	30.0M§△	400n		1.2u	400n	50 Ø	5.0 Ø	10 Ø	10 #△		500p		N	Si	200J	TO61	A
68	2N5312	30.0M§△	500n		750n	500n	50 Ø	5.0 Ø	20 Ø	5.0 #△		500pØ		P	Si	200J	TO61	A
69	2N5313	30.0M§△	500n		1.0u	500n	50 Ø	5.0 Ø	20 Ø	5.0 #△		500pØ		P	Si	200J	TO61	AØ
70	2N5314	30.0M§△	500n		750n	500n	50 Ø	5.0 Ø	20 Ø	5.0 #△		500pØ		P	Si	200J	TO61	A
71	2N5315	30.0M§△	500n		1.0u	500n	50 Ø	5.0 Ø	20 Ø	5.0 #△		500pØ		P	Si	200J	TO61	AØ
72	SDT3101	30.0M§△	500n		750n	500n	3.0 Ø	5.0 Ø	10uØ	90 Ø#		500pØ		P-PE	Si	200J	TO61	A
73	SDT3102	30.0M§△	500n		750n	500n	3.0 Ø	5.0 Ø	10uØ	90 Ø#		500pØ		P-PE	Si	200J	TO61	A
74	SDT3103	30.0M§△	500n		750n	500n	3.0 Ø	5.0 Ø	10uØ	90 Ø#		500pØ		P-PE	Si	200J	TO61	A
75	SDT3104	30.0M§△	500n		750n	500n	3.0 Ø	5.0 Ø	10uØ	90 Ø#		500pØ		P-PE	Si	200J	TO61	A
76	SDT3201	30.0M§△	500n		1.0u	500n	3.0 Ø	5.0 Ø	10uØ	90 Ø#		500pØ		N-PE	Si	200J	TO61	A
77	SDT3202	30.0M§△	500n		1.0u	500n	3.0 Ø	5.0 Ø	10uØ	90 Ø#		500pØ		N-PE	Si	200J	TO61	A
78	SDT3203	30.0M§△	500n		1.0u	500n	3 Ø	5.0 Ø	.01mØ	90 #Ø		500pØ		N-PE S	i	200J	TO61	A
79	SDT3204	30.0M§△	500n		1.0u	500n	3 Ø	5.0 Ø	.01mØ	90 #Ø		500pØ		N-PE S	i	200J	TO61	A
80▼	2N5733	30M§	700n		3.0u	1.0u	150 Ø#	2.0 Ø	10 Ø	150 #		750pØ		N-PE	Si	200J	TO63	AØ
81▼	2N5734	30M§	700n		3.0u	1.0u	150 Ø#	2.0 Ø	10 Ø	150 #		750pØ		N-PE	Si	200J	TO3	CØ
82	2N4002	30.0M§△	1000nØ			3uØ	4.0	4.0 Ø	1 Ø	30 †△	.04			N	Si	200J	TO63	AØ
83	2N4003	30.0M§△	1000nØ			3uØ	4.0	4.0 Ø	1 Ø	30 †△	.04			N	Si	200J	TO63	AØ
84	2N4004	30.0M§△	1000nØ		4.0uØ		1.2	4.0 Ø	2 Ø	15 #△	.05 #				Si	200	X21	
85	2N4005	30.0M§△	1000nØ		4.0uØ		1.2	4.0 Ø	2 Ø	15 #△	.05 #				Si	200	X21	
86	2N1384	35.0M	80n	20n	250n	100n	240m	.50 Ø	200m	50				P-D	Ge	85A	TO11	A
87	JAN2N3846	35M§Ø	4.0uØ			7.0uØ	150 Ø$	3.0 Ø	5.0 Ø	40 #△		750pØ		N	Si	175A	TO63	AØ
88	JAN2N3847	35M§Ø	4.0uØ			7.0uØ	150 Ø$	3.0 Ø	5.0 Ø	40 #△		750pØ		N	Si	175A	TO63	AØ
89	2N3388	36.0M§△	1000n	200n	400n	1.2u	600m	1.5 Ø	2.5mØ	60 △	400	35pØ		N	Si	175A	TO5	AØ
90	2N3389	36.0M§△	1000n	200n	400n	1.2u	600m	1.5 Ø	2.5mØ	60 △	400	35pØ		N	Si	175A	TO5	AØ
91	2N1122	40.0M§△		150 $			25m*	250mØ	10m	25 △	1.2	6.0pØ	750pt	P-MA	Ge	85J	TO24	A
92	2N1122A	40.0M§△		150 $			25m*	250mØ	10m	25 △	1.2	6.0pØ	750pt	P-MA	Ge	85J	TO24	A
93	JAN2N1854	40M§△			60n		150m	1.0 Ø	50mØ	400 Ø	15			P	Ge	85S	TO5	A
94#	2H1255	40.0M△	25nØ			60nØ	300m	10	2.0m	40 △	30	10pØ		P-ME	Si	175A	TO18	
95#	2H1257	40.0M△	25nØ			60nØ	300m	10	2.0m	40 △	30	10pØ		P-ME	Si	175A	TO18	
96#	2H1259	40.0M△	25nØ			60nØ	300m	10	2.0m	25 △	30	10pØ		P-ME	Si	175A	TO18	
97	2N1259	40.0M§△	25nØ			60nØ	450m	1.0 Ø	10mØ	100	30	10pØ		P	Si	200S	TO5	Ø
98#	HT100	40.0M△	25nØ†			80nØ	300m	10	2.0m	14 △	20	10pØ		P-ME	Si	175A	TO18	
99#	HT101	40.0M△	25nØ†			80nØ	300m	1.0 Ø	10mØ	120 Ø	50	10pØ		P-ME	Si	175A	TO18	
100	2N5334	40.0M§△	50n		950n	100n	6 Ø	2.0 Ø	2.0mØ	15 #△		75p		N	Si	200J	TO39	AØ
101	2N5335	40.0M§△	50n		950n	100n	6 Ø	2.0 Ø	2.0mØ	15 #△		75p		N	Si	200J	TO39	AØ
102	D27D1	40.0M§	50nØ†		500n†	50n†	2.0	1.0 Ø	1.0 Ø	20 △	750m	125p$		P-PL	Si	150J	X51	BØ
103	D27D2	40.0M§	50nØ†		500n†	50n†	2.0	1.0 Ø	1.0 Ø	10 △	750m	125p$		P-PL	Si	150J	X51	BØ
104	D27D3	40.0M§	50nØ†		500n†	50n†	2.0	1.0 Ø	1.0 Ø	20 △	750m	125p$		P-PL	Si	150J	X51	BØ
105	D27D4	40.0M§	50nØ†		500n†	50n†	2.0	1.0 Ø	1.0 Ø	10 △	750m	125p$		P-PL	Si	150J	X51	BØ
106	2N3747	40.0M§△	80n		60n	80n	30 Ø	5.0 Ø	5 Ø	15 △		150pØ		N	Si	200J	MT53	G
107	2N3748	40.0M§△	80n		60n	80n	30 Ø	5.0 Ø	5 Ø	15 △		150pØ		N	Si	200J	MT53	G
108	2N3749	40.0M§△	80n		60n	80n	30 Ø	5.0 Ø	5 Ø	15 △		150pØ		N	Si	200J	MT53	G
109	2850-1	40.0M§	100n	50n	400n	150n	1.0	1.0 Ø	500mØ	25 △	250m	125pØ		N-PL	Si	200S	TO5	AØ
110	2850-2	40.0M§	100n	50n	400n	150n	2.0	1.0 Ø	500mØ	25 △	250m	125pØ		N-PL	Si	200S	TO59	AØ

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	MAT	MAX. TEMP (°C)	DWG. No.	LEAD CODE
1	2850-3	40.0M§	100n	50n	400n	150n	1.5	1.0 Ø	500mØ	25 Δ	250m	125pⓅ		N-PL	Si	200S	MT32	AØ
2	2853-1	40.0M§	100n	50n	400n	200n	1.0	3.0 Ø	5.0 Ø	20 Δ#	300m	125pⓅ		N-PL	Si	200A	TO5	AØ
3	2853-2	40.0M§	100n	50n	400n	200n	2.0	3.0 Ø	5.0 Ø	20 Δ#	300m	125pⓅ		N-PL	Si	200A	TO59	AØ
4	2853-3	40.0M§	100n	50n	400n	200n	1.5	3.0 Ø	5.0 Ø	20 Δ#	300m	125pⓅ		N-PL	Si	200A	MT32	AØ
5	2855-1	40.0M§	100n	50n	400n	150n	1.0	1.0 Ø	50mØ	25 Δ	400m	125pⓅ		N-PL	Si	200A	TO5	AØ
6	2855-2	40.0M§	100n	50n	400n	150n	2.0	1.0 Ø	50mØ	25 Δ	400m	125pⓅ		N-PL	Si	200A	TO59	AØ
7	2855-3	40.0M§	100n	50n	400n	150n	1.5	1.0 Ø	50mØ	25 Δ	400m	125pⓅ		N-PL	Si	200A	MT32	AØ
8	2N5487	40.0M§Δ	125nØ			450nØ	15 Ø	5.0 Ø	5.0mØ	25 Δ#		75pⓅ		N	Si	200J	R113	AØ
9	2N5487-1	40.0M§	125nØ			450nØ	1.2	5.0 Ø	5.0 Ø	25	2.0	75p		N-PE	Si	200	TO5	
10	2N5487-3	40.0M§	125nØ			450nØ	1.5	5.0 Ø	5.0 Ø	15	2.0	75p		N-PE	Si	200	MT32	
11	2N5488	40.0M§Δ	125nØ			550nØ	15 Ø	5.0 Ø	5.0mØ	15 Δ#		75pⓅ		N	Si	200J	R113	AØ
12	2N5488-1	40.0M§	125nØ			550nØ	1.2	5.0 Ø	5.0 Ø	15	2.0	75p		N-PE	Si	200	TO5	
13	2N5488-3	40.0M§	125nØ			550nØ	1.5	5.0 Ø	5.0 Ø	15	2.0	75p		N-PE	Si	200	MT32	
14	USA55191/36	40.0M§Δ	150nØ		600nØ		2.3	4.0 Ø	150mØ	25 Δ#	28	45pⓅ		P	Si	200J		
15	2N794	40.0M§	160n	140n	140n	110n	150m	300mØ	10m	50		8.0p		P-ME	Ge	85A	TO18	A
16	2N696A	40M§Δ	230nØ		300nØ		800m	10 Ø	150mØ	20 Δ	.10	35p		N	Si	200J	TO5	AØ
17#	C426	40.0M§Δ	250nØ			650nØ	5.0 Ø	1.0 Ø	150mØ	70 #		25pⓅ		N-DPE	Si	200J	TO5	Ø
18	2N3418	40.0M§Δ	300nØ			1.2uØ	15 $	2.0 Ø	1 Ø	60 Ⓩ	.25	150pⓅ		N	Si	200C	TO5	AØ
19	2N3419	40.0M§Δ	300nØ			1.2uØ	15 $	2.0 Ø	1 Ø	120 Ⓩ	.25	150pⓅ		N	Si	200C	TO5	AØ
20	2N3420	40.0M§Δ	300nØ			1.2uØ	15 $	2.0 Ø	1 Ø	60 Ⓩ	.25	150pⓅ		N	Si	200C	TO5	AØ
21	2N3421	40.0M§Δ	300nØ			1.2uØ	15 $	2.0 Ø	1 Ø	120 Ⓩ	.25	150pⓅ		N	Si	200C	TO5	AØ
22	2N3551	40.0M§Δ	300nØ		2.5uØ		40	2.0 Ø	10 Ø	90 #Ⓩ	.10	850p		N	Si	200S	X15	
23	2N3552	40.0M§Δ	300nØ		2.5uØ		40	2.0 Ø	10 Ø	90 #Ⓩ	.10	850p		N	Si	200S	X15	
24	2N4000	40.0M§Δ	300nØ			2uØ	1.0	2.0 Ø	50mØ	10 Δ	.50	60pⓅ		N	Si	200J	TO5	AØ
25	2N4001	40.0M§Δ	300nØ			2uØ	1.0	2.0 Ø	50mØ	20 Δ	.50	60pⓅ		N	Si	200J	TO5	AØ
26	2N3879	40.0M§Δ	400n	500nØ	800n	400n	35 Ø	2.0 Ø	4 Ø	12 Δ	.30			N	Si	200J	TO66	CØ
27	2N5404	40.0M§Δ	500n		750n	200n	5 $	5.0 Ø	5 Ø	5.0 Δ	.30	150p		P	Si	200J	TO5	AØ
28	2N5405	40.0M§Δ	500n		750n	200n	5 $	5.0 Ø	5 Ø	5.0 Δ	.30	150p		P	Si	200J	TO5	AØ
29	2N5406	40.0M§Δ	500n		1.0u	300n	5 $	5.0 Ø	5 Ø	10 Δ	.30	150p		P	Si	200J	TO5	AØ
30	2N5407	40.0M§Δ	500n		1.0u	300n	5 $	5.0 Ø	5 Ø	10 Δ	.30	150p		P	Si	200J	TO5	AØ
31	2N5408	40.0M§Δ	500n		750n	200n	30m$	5.0 Ø	5 Ø	5.0 Δ	.30	150p		P	Si	200J	TO111	A
32	2N5409	40.0M§Δ	500n		750n	200n	30m$	5.0 Ø	5 Ø	5.0 Δ	.30	150p		P	Si	200J	TO111	A
33	2N5410	40.0M§Δ	500n		1.0u	300n	30m$	5.0 Ø	5 Ø	10 Δ	.30	150p		P	Si	200J	TO111	A
34	2N5411	40.0M§Δ	500n		1.0u	300n	30m$	5.0 Ø	5 Ø	10 Δ	.30	150p		P	Si	200J	TO111	A
35	SDT3301	40.0M§Δ	500n		1.0u	300n	2.0 Ø	5.0mØ	2.0 Ø	120 Ⓩ#		200p		P-PE	Si	200J	TO111	
36	SDT3302	40.0M§Δ	500n		1.0u	300n	2.0 Ø	5.0mØ	2.0 Ø	120 Ⓩ#		200p		P-PE	Si	200J	TO111	
37	SDT3303	40.0M§Δ	500n		1.0u	300n	2.0 Ø	5.0mØ	2.0 Ø	120 Ⓩ#		200p		P-PE	Si	200J	TO111	
38	SDT3304	40.0M§Δ	500n		1.0u	300n	2.0 Ø	5.0mØ	2.0 Ø	120 Ⓩ#		200p		P-PE	Si	200J	TO111	
39	SDT3305	40.0M§Δ	500n		750n	200n	2.0 Ø	5.0mØ	2.0 Ø	60 Ⓩ#		200p		P-PE	Si	200J	TO111	
40	SDT3306	40.0M§Δ	500n		750n	200n	2.0 Ø	5.0mØ	2.0 Ø	60 Ⓩ#		200p		P-PE	Si	200J	TO111	
41	SDT3307	40.0M§Δ	500n		750n	200n	2.0 Ø	5.0 Ø	2.0 Ø	60 Ⓩ#		200p		P-PE	Si	200J	TO111	
42	SDT3308	40.0M§Δ	500n		750n	200n	2.0 Ø	5.0 Ø	2.0 Ø	60 Ⓩ#		200p		P-PE	Si	200J	TO111	
43	SDT3309	40.0M§Δ	500n		750n	200n	2.0 Ø	5.0 Ø	2.0 Ø	60 Ⓩ#		200p		P-PE	Si	200J	TO111	
44	SDT3401	40.0M§Δ	500n		1.5u	300n	2.0 Ø	5.0 Ø	2.0 Ø	120 Δ#		200p		N-PE	Si	200J	TO111	
45	SDT3402	40.0M§Δ	500n		1.5u	300n	2.0 Ø	5.0 Ø	2.0 Ø	120 Δ#		200p		N-PE	Si	200J	TO111	
46	SDT3403	40.0M§Δ	500n		1.5u	300n	2.0 Ø	5.0 Ø	2.0 Ø	120 Δ#		200p		N-PE	Si	200J	TO111	
47	SDT3404	40.0M§Δ	500n		1.5u	300n	2.0 Ø	5.0 Ø	2.0 Ø	120 Δ#		200p		N-PE	Si	200J	TO111	
48	SDT3405	40.0M§Δ	500n		1.0u	300n	2.0 Ø	5.0 Ø	2.0 Ø	60 Δ#		200p		N-PE	Si	200J	TO111	
49	SDT3406	40.0M§Δ	500n		1.0u	300n	2.0 Ø	5.0 Ø	2.0 Ø	60 Δ#		200p		N-PE	Si	200J	TO111	
50	SDT3407	40.0M§Δ	500n		1.0u	300n	2.0 Ø	5.0 Ø	2.0 Ø	60 Δ#		200p		N-PE	Si	200J	TO111	
51	SDT3408	40.0M§Δ	500n		1.0u	300n	2.0 Ø	5.0 Ø	2.0 Ø	60 Δ#		200p		N-PE	Si	200J	TO111	
52	SDT3409	40.0M§Δ	500n		1.0u	300n	2.0 Ø	5.0 Ø	2.0 Ø	60 Δ#		200p		N-PE	Si	200J	TO111	
53	2N5218	40.0M§Δ	600n	600nØ	4.5u	1.0u	50 Ø	5.0 Ø	.50m	75 Δ#	.30			N	Si	200C	TO61	AØ
54	2N5560	40.0M§Δ	1uØ			2uØ	150 $	2.0 Ø	15 Ø	30 Δ	.05	600p$		N	Si	200J	TO63	AØ
55	PT1937	40.0M§Δ	1000nØ			3.0uØ	100 Ø	2.0 Ø	7.0 Ø	60 Ⓩ	140m			N-DPL	Si	150J	MT38	Ø
56	PT1941	40.0M§Δ	1000nØ			3.0uØ	90 Ø	2.0 Ø	7.0 Ø	60 Ⓩ	140m			N-DPL	Si	150J	MT39	
57	2N3996	40M§Δ	300uØ			1.5uØ	30 Ø	5.0 Ø	5.0 Ø	15 Δ#		150pⓅ		N	Si	200J	MT53	M
58	2N3997	40M§Δ	300uØ			2.0uØ	30 Ø	5.0 Ø	5.0 Ø	20 Δ#		150pⓅ		N	Si	200J	MT53	M
59	2N3998	40M§Δ	300uØ			1.5uØ	30 Ø	5.0 Ø	5.0 Ø	15 Δ#		150pⓅ		N	Si	200J	MT42	AØ
60	2N3999	40M§Δ	300uØ			2.0uØ	30 Ø	5.0 Ø	5.0 Ø	20 Δ#		150pⓅ		N	Si	200J	MT42	AØ
61	2N2693	42.0M§Δ	700n	400n	900n	1.0u	1.0 Ø	1.0 Ø	.10mØ	60 Δ	20	5.0pⓅ		N	Si	200S	TO18	AØ
62	2N2694	42.0M§Δ	750n	450n	1.8u	1.3u	1.0 Ø	1.0 Ø	.10mØ	30 Δ	25	5.0pⓅ		N	Si	200S	TO18	AØ
63	2N4075	46.0M§	300nØ			1.5uØ	30 Ø	5.0 Ø	2.0 Ø	75 #	500m	70p		N-DPE	Si	200J	TO59	A
64	2N4076	46.0M§	300nØ			1.5uØ	30 Ø	5.0 Ø	2.0 Ø	50 #	500m	70p		N-DPE	Si	200J	TO59	A
65	2N393	50.0M§		120n$			25m*	500mØ	50m	50	8.8	3.5p	750pt	P-MA	Ge	100S	TO24	F
66#	2SC708AH	50M§			1.4n	.08n	750m	4.0 Ø	50m	30 Δ				N	Si	175J	TO39	
67#	2SC708H	50M§			1.4n	.08n	750m	4.0 Ø	50m	30 Δ				N	Si	175J	TO39	
68#	2SC857H	50M§Δ					200m	6.0 Ø	10mØ	30 Δ		10p		N	Si	175J	TO1	
69	D12X043	50.0M§Δ			150n	50n	300m	10 Ø	150mØ	40 Δ	1.7	20pⓅ		N-PE	Si	200J	TO5	
70	2N1387	50.0M§	15nØt		10nt	10nt	300m	5.0 Ø	10m	30	120	4.0p	60pt	N-AD	Si	175J	TO5	A
71	2N1255	50.0M§Δ	25nØ		60nØ		450m	1.0 Ø	10mØ	80 Ⓩ	30	10pⓅ		P	Si	200S	TO5	A
72	2N1257	50.0M§Δ	25nØ		60nØ		450m	1.0 Ø	10mØ	80 Ⓩ	30	10pⓅ		P	Si	200S	TO5	A
73	2N1258	50.0M§Δ	25nØ		60nØ		450m	1.0 Ø	10mØ	150 Ⓩ	60	10pⓅ		P	Si	200S	TO5	A
74#	2SA503	50.0M§Δ	25nØt		500nt	80nt	6.0mØ	2.0 Ø	150mØ	300 Ⓩ	5.3	30pⓅ		P-PE	Si	175J	TO39	AØ
75#	2SA504	50.0M§Δ	25nØt		500nt	80nt	6.0mØ	2.0 Ø	150mØ	300 Ⓩ	5.3	30pⓅ		P-PE	Si	175J	TO39	AØ
76	2N2236	50.0M§Δ	30nØ		600nØ		600m	1.0 Ø	100mØ	60 #Ⓩ	2.5	35pⓅ		N	Si	150S	TO5	AØ
77#	BFY51	50.0M§Δ	30n	25n	160n	35n	800m	6.0 Ø	10mØ	55				N-PE	Si	200J	TO5	Ø
78#	BFY52	50.0M§Δ	30n	25n	220n	40n	800m	6.0 Ø	10mØ	80				N-PE	Si	200J	TO5	Ø
79	2N1131A	50.0M§Δ	45nØ		35nØ		2.0 Ø	10 Ø	150mØ	20 Δ	10	30pⓅ		P	Si	175J	TO39	A
80	2N560	50.0M	60nØ		50nØ		500m	5.0 Ø	100m	20 Δ	50	8.0pⓅ		N-D	Si	150S	TO29	AØ
81	2N2192	50.0M§Δ	70n		150n	50n	2.8 Ø	10 Ø	.10mØ	15 Δ	2.3	20pⓅ		N	Si	200J	TO5	AØ
82	2N2192A	50.0M§Δ	70n		150n	50n	2.8 Ø	10 Ø	.10mØ	15 Δ	1.7	20pⓅ		N	Si	200J	TO5	AØ
83	2N2192B	50.0M§Δ	70n		150n	50n	2.8 Ø	10 Ø	.10mØ	15 Δ	1.2	20pⓅ		N	Si	200J	TO5	AØ
84	2N2193	50.0M§Δ	70n		150n	50n	2.8 Ø	10 Ø	.10mØ	15 ΔⓏ	2.3	20pⓅ		N	Si	200J	TO5	AØ
85	2N2193A	50.0M§Δ	70n		150n	50n	2.5 Ø	10 Ø	.10mØ	15 Δ	1.7	20pⓅ		N	Si	200S	TO5	AØ
86	2N2193B	50.0M§Δ	70n		150n	50n	2.8 Ø	10 Ø	.10mØ	15 Δ	1.2	20pⓅ		N	Si	200J	TO5	AØ
87	2N2194	50.0M§Δ	70n		150n	50n	2.8 Ø	10 Ø	150m	60 #Ⓩ	2.3	20pⓅ		N	Si	200J	TO5	AØ
88	2N2194A	50.0M§Δ	70n		150n	50n	2.8 Ø	10 Ø	500mØ	12 #Δ	1.7	20pⓅ		N	Si	200S	TO5	AØ
89	2N2194B	50.0M§Δ	70n		150n	50n	2.8 Ø	10 Ø	150mØ	20 #Δ	1.2	20pⓅ		N	Si	200J	TO5	AØ
90	2N2350	50.0M§	70n		150n	50n	400m	10 Ø	150mØ	300 Ⓩ#	2.3	20pⓅ		N-PE	Si	200J	TO46	AØ
91	2N2350A	50.0M§	70n		150n	50n	400m	10 Ø	150mØ	300 Ⓩ#	1.6	20pⓅ		N-PE	Si	200J	TO46	AØ
92	2N2351	50.0M§	70n		150n	50n	400m	10 Ø	150mØ	120 Ⓩ#	2.3	20pⓅ		N-PE	Si	200J	TO46	AØ
93	2N2351A	50.0M§	70n		150n	50n	400m	10 Ø	150mØ	120 Ⓩ#	1.6	20pⓅ		N-PE	Si	200J	TO46	AØ
94	2N2352	50.0M§	70n		150n	50n	400m	10 Ø	150mØ	60 Ⓩ#	2.3	20pⓅ		N-PE	Si	200J	TO46	AØ
95	2N2352A	50.0M§	70n		150n	50n	400m	10 Ø	150mØ	60 Ⓩ#	1.6	20pⓅ		N-PE	Si	200J	TO46	AØ
96	2N2364	50.0M§	70n	50n	500n	100n	400m	10 Ø	150mØ	120 Ⓩ#	2.3	15pⓅ		N-PE	Si	200J	TO46	AØ
97	2N2364A	50.0M§Δ	70n	50n	500n	100n	400m	10 Ø	150mØ	120 Ⓩ#	1.6	15pⓅ		N-PE	Si	200J	TO46	AØ
98#	BSY46	50.0MΔ	70n		150n	50n	800m	10 Ø	150mØ	80 #		20pⓅ		N-PE	Si	200J	TO5	
99	2N2878	50.0M§Δ	80n		60n	80n	.03m$Ø	5.0 Ø	50mØ	140 tⓏ	.25	150pⓅ		N	Si	200J	MT42	AØ
100	2N2880	50.0M§Δ	80n		60n	80n	.03m$Ø	5.0 Ø	50mØ	140 tⓏ	.25	150pⓅ		N	Si	200J	MT42	AØ
101	2N3750	50.0M§Δ	80n		60n	80n	30 Ø	5.0 Ø	5 Ø	20 Δ		150pⓅ		N	Si	200J	MT53	G
102	2N3751	50.0M§Δ	80n		60n	80n	30 Ø	5.0 Ø	5 Ø	20 Δ		150pⓅ		N	Si	200J	MT53	G
103	2N3752	50.0M§Δ	80n		60n	80n	30 Ø	5.0 Ø	5 Ø	20 Δ		150pⓅ		N	Si	200J	MT53	G
104	2N5320	50.0M§Δ	80nØ			800nØ	10 Ø	2.0 Ø	1 Ø	10 Δ	1.0			N	Si	200J	TO5	AØ
105	2N5321	50.0M§Δ	80nØ			800nØ	10 Ø	4.0 Ø	500mØ	250 Ⓩ	1.6			N	Si	200J	TO5	AØ
106	2N3039	50.0M§Δ	100n	50n	500n	150n	1.0 Ø	10 Ø	100uØ	15 Δ	20	40pⓅ		P	Si	200S	TO50	A
107	2N3040	50.0M§Δ	100n	50n	500n	150n	1.0 Ø	10 Ø	100uØ	30 Δ	20	40pⓅ		P	Si	200S	TO50	A
108	2N3341	50.0M§Δ	100nØ				400m	1.0 Ø	10uØ	40 Δ	25k	6.0pⓅ		P	Si	175A	TO46	AØ
109	2N5322	50.0M§Δ	100nØ			1uØ	10 Ø	2.0 Ø	1 Ø	10 Δ	1.4			P	Si	200J	TO5	AØ
110	2N5323	50.0M§Δ	100nØ			1uØ	10 Ø	4.0 Ø	500mØ	250 Ⓩ	2.4			P	Si	200J	TO5	AØ

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	MAT	MAX. TEMP (°C)	DWG. No.	LEAD CONF.
1	2N5357	50.0M§△	100n	50n	600n	100n	30 Ø	1.0	.50m	45 △	.03	60pØ		P	Si	200J	TO37	AØ
2	2854-1	50.0M§	100n	50n	300n	150n	1.0	1.0 Ø	50mØ	50 △	.40	125pØ		N-PL S	i	200A	TO5	AØ
3	2854-2	50.0M§	100n	50n	300n	150n	2.0	1.0 Ø	50mØ	50 △	.40	125pØ		N-PL S	i	200A	TO59	AØ
4	2854-3	50.0M§	100n	50n	300n	150n	1.5	1.0 Ø	50mØ	50 △	.40	125pØ		N-PL S	i	200A	MT32	AØ
5#	2SA408	50.0M	105n†		150n†	80 †	50m	1.0 Ø	15mØ	100		3.0p		P-MD	Ge		R48	
6	TI486	50M§	140nØ†			2.6uØ†	1.0	5.0 Ø	200mØ	20 △#		30p		N-DPL	Si	200C	TO5	AØ
7	TI487	50M§	140nØ†			2.6uØ†	2.0	5.0 Ø	200mØ	20 △#		30p		N-DPL	Si	200C	MT13	AØ
8	2N3036	50.0M§△	150n	30n	1.0u	200n	5.0 Ø	10 Ø	10mØ	40 △		15pØ		N	Si	200S	TO5	AØ
9	2N3037	50.0M§△	150n	30n	1.0u	200n	1.0 Ø	10 Ø	100uØ	15 △	20	15pØ		N	Si	200S	TO50	A
10	2N3038	50.0M§△	150n	30n	1.0u	200n	1.0 Ø	10 Ø	100uØ	30 △	30	15pØ		N	Si	200S	TO50	A
11#	2SA251	50.0M	150n		230n	150n	50m	1.0 Ø	15mØ	50		2.5p	150n	P-MD	Ge			
12	USA55191/33	50.0M§△	150nØ			600nØ	5.0 Ø	10 Ø	150mØ	19 △#	16	35pØ		N	Si	200S		
13	2N697A	50.0M§△	190nØ		300nØ		5.0 Ø	10 Ø	150mØ	120 Ø		35pØ		N	Si	200J	TO5	AØ
14	JAN2N696	50.0M§△	200nØ			1.0uØ	2.0 Ø	10 Ø	300mØ	13 △#	10	25pØ		N	Si	200S	TO5	AØ
15▼	MJ3801	50M§△	200n	200n	3.0u	200n	40 Ø	4.0 Ø	10 Ø	1.0k△		75pØ		N	Si	200J	L69	
16▼	MJ3802	50M§△	200n	200n	3.0u	200n	40 Ø	4.0 Ø	10 Ø	250 △		75pØ		N	Si	200J	L69	
17#	BC140	50.0M§△	250nØ			850nØ	3.7 Ø	1.0 Ø	1 Ø	15 △*		25p$		N-E	Si	175J	TO39	AØ
18#	BC141	50.0M§△	250nØ			850nØ	3.7 Ø	1.0 Ø	1 Ø	15 △*		25p$		N-E	Si	175J	TO39	AØ
19	2N5083	50.0M§△	300n	50n	350n	300n	35mØ	2.0 Ø	2 Ø	40 #△		80p$		N	Si	200J	TO59	C
20	2N5085	50.0M§△	300n	50n	350n	300n	35mØ	2.0 Ø	2 Ø	40 #△		80p$		N	Si	200J	TO59	C
21	2N5425	50.0M§△	300nØ			2.0uØ	32. Ø	10 Ø	500mØ	500 †#		15p$Ø		P	Si	200S	RO117a	A
22	2N5426	50.0M§△	300nØ			2.0uØ	32. Ø	10 Ø	500mØ	1.0k†#		15p$Ø		P	Si	200S	RO117a	A
23	USA55191/34	50.0M§△	300nØ			900nØ	2.3	10 Ø	150mØ	40 △#	26	20pØ		N	Si	200J		
24#	BUY24	50.0M§△	350nØ			650nØ	15 §	2.0 Ø	500uØ	100 #		35p		N-DPE	Si	150J	TO3	CØ
25	2N4390	50.0M§△	500n	150n	800n	500n	500m	1.0 Ø	20mØ	20 △	100	6p$Ø		N	Si	175S	TO104	AØ
26	2N5237	50.0M§△	500n		1.5u	500n	5 Ø	5.0 Ø	5	40 #△				N	Si	200J	TO5	AØ
27	2N5238	50.0M§△	500n		1.5u	500n	5 Ø	5.0 Ø	5	40 #△				N	Si	200J	TO5	AØ
28	2N5671	50M§△	500nØ		1.5u	500n	140 Ø	2.0 Ø	15 Ø	100 Ø	50m	900pØ		N	Si	200J	TO3	CØ
29	2N5672	50M§△	500nØ		1.5u	500n	140 Ø	2.0 Ø	15 Ø	100 Ø	50m	900pØ		N	Si	200J	TO3	CØ
30	JAN2N604M	50.0M§△	750nØ			450nØ	120m	1.0 Ø	500u△	140 Ø	14	5.0pØ		P	Ge	100S	R81a	A
31	2N5264	50M§△	1.0u		2.5u	1.5u	87 Ø	5.0 Ø	1.0 Ø	30 △#		80p$Ø		N	Si	200J	TO3	CØ
32#	BUY18	50.0M§△	1000nØ			2.5uØ	25 $	5.0 Ø	1.0mØ	30 △#		55p		N-DPE	Si	150J	TO3	CØ
33	PT1949	50.0M§	1500nØ			3.0uØ	50 Ø	2.0 Ø	5.0m	25 △				N-PL	Si	150J	X15	
34	2N865	52.0M§	75n		100n	75n	150m	.50 Ø	5.0mØ	75 †		5.0p		P-A	Si		TO18	A
35	2N1386	60.0M	13nØ†		10n†	10n†	300m	5.0 Ø	10m	45	120	4.0p	60n†	N-AD	Si	170J	TO5	A
36	2N1427	60.0M*	30n	120n$			25m*	3.0	500u	120 †	10	3.5p	150n†	P-MD	Ge	85J	TO24	A
37	2N2389	60.0M§△	30n♦				450m	10 Ø	150mØ	40 △	10	25pØ		N-PL	Si	200J	u25	
38	2N3506	60.0M§△	30n	15n	55n	35n	5.0 Ø	1.0 Ø	500mØ	50 △	1.0	40pØ		N	Si	200S	TO5	AØ
39	2N3507	60.0M§△	30n	15n	55n	35n	5.0 Ø	1.0 Ø	500mØ	35 △	1.0	40pØ		N	Si	200S	TO5	AØ
40#	BFY50	60.0M§△	30n	25n	140n	35n	800m	6.0 Ø	10mØ	40				N-PE	Si	200J	TO5	Ø
41#	2SC849	60.0M§	40n†		500n†	60n†	500m	4.0 Ø	10mØ	160				N	Si	175J	TO18	
42	2N1132A	60.0M§△	45nØ		35nØ		2.0 Ø	10 Ø	150mØ	30 △	10	30pØ		P	Si	175J	TO39	A
43	2N1132B	60.0M§△	45nØ			35nØ	2.0 Ø	10 Ø	150mØ	30 △	10	30pØ		P	Si	175J	TO39	AØ
44	2N795	60.0M§	70n	80n	120n	70n	150m	300mØ	10m	50		8.0p		P-ME	Ge	85A	TO18	A
45	2N4036	60.0M§△	70n	110nØ	600n	100n	5.0 Ø	10 Ø	500mØ	20 △	4.3			P	Si	200J	TO5	AØ
46	2N3021	60.0M§△	100nØ		325n	75n	25 Ø	2.0 Ø	1.0mØ	20 △	.50			P	Si	175C	TO3	CØ
47	2N3022	60.0M§△	100nØ		325n	75n	25 Ø	2.0 Ø	1.0mØ	20 △	.50			P	Si	175C	TO3	CØ
48	2N3023	60.0M§△	100nØ		325n	75n	25 Ø	2.0 Ø	1.0mØ	20 △	.50			P	Si	175C	TO3	CØ
49	2N3024	60.0M§△	100nØ		325n	75n	25 Ø	2.0 Ø	1.0mØ	50 △	.33			P	Si	175C	TO3	CØ
50	2N3025	60.0M§△	100nØ		325n	75n	25 Ø	2.0 Ø	1.0mØ	50 △	.33			P	Si	175C	TO3	CØ
51	2N3026	60.0M§△	100nØ		325n	75n	25 Ø	2.0 Ø	1.0mØ	50 △	.33			P	Si	175C	TO3	CØ
52	2N3719	60.0M§△	100nØ			400nØ	6 Ø	1.5 Ø	1 Ø	25 #△				P	Si	200J	TO5	AØ
53	2N3720	60.0M§△	100nØ			400nØ	6 Ø	1.5 Ø	1 Ø	25 #△				P	Si	200J	TO5	AØ
54	2N5344	60.0M§△	100n		600n	100n	40 §	5.0 Ø	1.0mØ	7 #△	3.0			P	Si	200J	TO66	CØ
55	2N5345	60.0M§△	100n		600n	100n	40 §	5.0 Ø	1.0mØ	7 #△	3.0			P	Si	200J	TO66	CØ
56	2851-1	60.0M§	100n	50n	400n	150n	1.0	1.0 Ø	500uØ	25 △	400m	125pØ		N-PL	Si	200A	TO5	AØ
57	2851-2	60.0M§	100n	50n	400n	150n	2.0	1.0 Ø	500uØ	25 △	400m	125pØ		N-PL	Si	200A	TO59	AØ
58	2851-3	60.0M§	100n	50n	400n	150n	1.5	1.0 Ø	500uØ	25 △	400m	125pØ		N-PL	Si	200A	MT32	AØ
59#	2SA412	60.0M§	180n	100n	60n	90n	150m	.50	30m	30		12p		P	Ge	85	TO1	
60	JAN2N697	60.0M§△	200nØ			1.0uØ	2.0 Ø	10 Ø	500mØ	20 △#	10	25pØ		N	Si	200S	TO5	AØ
61	2N3108	60.0M§△	200nØ		600nØ		5.0 Ø	1.0 Ø	150mØ	40 #△		20pØ		N	Si	200S	TO5	AØ
62	2N3110	60.0M§△	200nØ		600nØ		5.0 Ø	1.0 Ø	150mØ	40 #△		25pØ		N	Si	200S	TO5	AØ
63	2N5412	60.0M§△	200n	25n	300n	300n	100 Ø	5.0 Ø	2 Ø	20 †△	.10			N	Si	175J	TO61	AØ
64	B148000	60.0M§△	200n	25n	300n	300n	100 Ø	5.0 Ø	.02mØ	160 #Ø	.10			N	Si	175J	TO61	AØ
65	B148001	60.0M§△	200n	25n	300n	300n	100 Ø	5.0 Ø	.02mØ	160 #Ø	.10			N	Si	175J	TO61	AØ
66	B148002	60.0M§△	200n	25n	300n	300n	100 Ø	5.0 Ø	.02mØ	160 #Ø	.10			N	Si	175J	TO61	AØ
67	B148003	60.0M§△	200n	25n	300n	300n	100 Ø	5.0 Ø	.02mØ	160 #Ø	.10			N	Si	175J	TO61	AØ
68	B148004	60.0M§△	200n	25n	300n	300n	100 Ø	5.0 Ø	.02mØ	160 #Ø	.10			N	Si	175J	TO61	AØ
69#	BSX33	60.0M§	200nØ			600nØ	1.8 Ø	10 Ø	10mØ	40 △#		25pØ		N-DPE	Si	200J	TO18	Ø
70	2N5202	60.0M§△	400n		1.2u	400n	35mØ	1.2 Ø	4 Ø	10 △	.30			N	Si	200J	TO66	CØ
71	2N5038	60.0M§△	500n	500nØ	1.5u	500n	140 Ø	5.0 Ø	12 Ø	20 △	125m			N	Si	200J	TO3	CØ
72	2N5039	60.0M§△	500n	500nØ	1.5u	500n	140 Ø	5.0 Ø	10 Ø	20 △	125m			N	Si	200J	TO3	CØ
73	2N1252	64.0M△	80n		150nØ		600m	10 Ø	150mØ	35 #	10	45pØ		N-D	Si	175J	TO5	AØ
74	2N696	64.0M△	200n†				600m	10 Ø	150mØ	20 #△	10	35pØ		N-D	Si	175S	TO5	AØ
75	2N717	64.0M△	200n†				400m	10 Ø	150mØ	20 #△	10	35pØ		N-D	Si	175S	TO18	AØ
76	2N2692	66.0M§	700n	400n	500n	1.0u	300m	1.0 Ø	100uØ	90 △	20	5.0pØ		N-PE	Si	175J	TO18	AØ
77	JAN2N1711	70.0M§△			30n*		800m	10 Ø	100uØ	35 △	10	25pØ		NØ	Si	200J	TO5	AØ
78	JAN2N1890	70.0M§△			30n*		800m	10 Ø	100uØ	35 △	24	15pØ		NØ	Si	200J	TO5	Ø
79	2N1411	70.0M§	30n	160n$			25m*	1.0 Ø	50m	75		3.0p	550n†	P-MA	Ge	85J	TO24	F
80#	2SC109	70.0M§△	60n	60n	60n	60n	600m	2.0 Ø	150mØ	35 †△	3.0	35pØ		N-EM	Si	150J	TO5	
81#	2SC850	70.0M§	80n		800n	150n	500m	4.0 Ø	10mØ	160				N	Si	175J	TO18	
82	2N3340	70.0M§△	100nØ				400m	1.0 Ø	.01mØ	40 △	20k	6.0pØ		N	Si	175A	TO46	AØ
83	2N3107	70.0M§△	200nØ			1uØ	5.0 Ø	10 Ø	.10mØ	35 △		20pØ		N	Si	200J	TO5	AØ
84	2N3109	70.0M§△	200nØ			1uØ	5.0 Ø	10 Ø	.10mØ	35 △		25pØ		N	Si	200J	TO5	AØ
85	2N5584	70M§△	350nØ			1.2mØ	1.0kØ	3.0 Ø	20 Ø	15 △	75m			N	Si	200J	TO63	AØ
86#	BFX34	70.0M§△	600nØ			1.2uØ	5.0mØ	2.0 Ø	1.0 Ø	100 #		100pØ		N-DPE	Si	200J	TO5	
87	JAN2N4865	70.0M§Ø	2.0uØ		1.5u	500n	300 #	5.0 Ø	20 Ø	30 △#				N	Si	200J	MT49a	AØ
88	JAN2N5250	70.0M§Ø	2.0uØ		1.5u	500n	300 #	5.0 Ø	20 Ø	30 △#				N	Si	200J	MT49a	AØ
89	JAN2N5251	70.0M§Ø	2.0uØ		1.5u	500u	300 #	5.0 Ø	20 Ø	30 △#				N	Si	200J	MT49a	AØ
90	2N1754	75.0M§	25n				50m	500mØ	40m	50 †		1.5p		P-MD	Ge	85A	TO9	A
91	JAN2N4150	75.0M§Ø	500n	50n	1.5u	500n	1.5m	5.0 Ø	10 Ø	10 △#		350pØ		N	Si	200A	TO5	A
92	JAN2N5237	75.0M§Ø	500n	50n	1.5u	500n	1.5m	5.0 Ø	10 Ø	10 △#		350pØ		N	Si	200A	TO5	A
93	JAN2N5238	75.0M§Ø	500n	50n	1.5u	500n	1.5m	5.0 Ø	10 Ø	10 △#		350pØ		N	Si	200A	TO5	A
94	2N796	80.0M§	60n	70n	80n	50n	150m	300mØ	10m	75		8.0p		P-ME	Ge	85A	TO18	A
95#	2SA409	80.0M	90n†		100n†	60n†	50m	1.0 Ø	15mØ	100		3.0p		P-MD	Ge		R48	
96#	2SA252	80.0M	120n		200n	120n	50m	1.0 Ø	15mØ	150		2.5p	150n	P-MD	Ge		R48	
97	2N5326	80.0M§△	150nØ			400nØ	20 $	1.0 Ø	1 Ø	50 #△				N	Si	200J	TO59	A
98	2N697	80.0M△	200n†				600m	10 Ø	150mØ	40 #△	10	35pØ		N-D	Si	175S	TO5	AØ
99	2N718	80.0M△	200n†				400m	10 Ø	150mØ	40 #△	10	35pØ		N-D	Si	175S	TO18	AØ
100	CS697	80.0M△	200n†				1.5 Ø	10 Ø	150mØ	40 #△	10	35pØ		N-D	Si		R97	
101	CS1420	80.0M△	200n†				1.5 Ø	10 Ø	150mØ	100 #△	10	35pØ		N-D	Si		R97	
102	2N5084	80.0M§△	300n	50n	350n	300n	35mØ	2.0 Ø	2 Ø	100 #△		80p$		N	Si	200J	TO59	C
103	2N5329	80.0M§△	350nØ			1.1uØ	65 $	3.0 Ø	20 Ø	10 △	.09			N	Si	200J	TO61	A
104	2N5330	80.0M§△	350nØ			1.2uØ	80 $	3.0 Ø	30 Ø	10 △	.06			N	Si	200J	TO61	A
105	2N5331	80.0M§△	350nØ			1.2uØ	100 $	3.0 Ø	30 Ø	10 △	.06			N	Si	200J	TO63	A
106	2N1683	80.0M	410n▼				150m	500mØ	40m	85 †		8.0p		P-ME	Ge	85	TO5	A
107▼	BSW66	80M†	500n†			1.0u†	800m	5.0 Ø	10mØ	30 △		35p$Ø		N	Si	200J	TO39	AØ
108▼	BSW67	80M†	500n†			1.0u†	800m	5.0 Ø	10mØ	30 △		35p$Ø		N	Si	200J	TO39	AØ
109▼	BSW68	80M†	500n†			1.0u†	800m	5.0 Ø	10mØ	30 △		35p$Ø		N	Si	200J	TO39	AØ
110	FT34C	80.0M§△	500nØ			1.0uØ	5.0 Ø	2.0 Ø	2.0uØ	85 #	200m	80pØ		N-PE	Si	200S	TO5	AØ

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	MAT	MAX. TEMP (°C)	DWG. No.	LEAD CODE
1	FT34D	80.0M§Δ	500nØ			1.0uØ	5.0 Ø	2.0 Ø	2.0uØ	210 #	200m	80pØ		N-PE	Si	200S	TO5	AØ
2	D28D1	85.0M§	25nØ		200n	50n	4.0mØ§	2.0 Ø	1 Ø	10 Δ	1.0	8.0p$		Nt	Si	150S	X51	A
3	D28D2	85.0M§	25nØ		200n	50n	4.0mØ§	2.0 Ø	1 Ø	20 Δ	1.0	8.0p$		Nt	Si	150S	X51	A
4	D28D3	85.0M§	25nØ		200n	50n	4.0mØ§	2.0 Ø	1 Ø	10 Δ	1.0	8.0p$		Nt	Si	150S	X51	A
5	D28D4	85.0M§	25nØ		200n	50n	4.0mØ§	2.0 Ø	1 Ø	10 Δ	1.0	8.0p$		Nt	Si	150S	X51	A
6	D28D5	85.0M§	25nØ		200n	50n	4.0mØ§	2.0 Ø	1 Ø	10 Δ	1.0	8.0p$		Nt	Si	150S	X51	A
7	D28D7	85.0M§	25nØ		200n	50n	4.0mØ§	2.0 Ø	1 Ø	10 Δ	1.0	8.0p$		Nt	Si	150S	X51	A
8	D28D10	85.0M§	25nØ		200n	50n	4.0mØ§	2.0 Ø	1 Ø	10 Δ	1.0	8.0p$		Nt	Si	150S	X51	A
9#	BD123	85.0M§	90nt	18nt	280nt	80nt	45	10 Ø	1.0 Ø	55	650m			N-PE	Si	175J	TO3	CØ
10#	BFY56	86.0M§	225nØ			625nØ	5.0mØ	10 Ø	100uØ	15 Δ		25pØ		N-DPE	Si	200J	TO5	AØ
11#	BSY24	90.0M§	10nt	9.0nt	350nt	25nt	600m	2.0 Ø	500mØ	20	4.0	35pØ		N-PEØ	Si	150A	TO5	Ø
12#	BUY10	90.0M§	10nt	9.0nt	350nt	25nt	2.5m	2.0 Ø	100mØ	35		23p		N-PE	Si	150J	TO3	
13	2N501	90.0M§	18n		12n	10n	60m	500mØ	10m	30				P-MD	Ge	100S	TO1	A·
14	2N501A	90.0M§	18n		12n	10n	60m	500mØ	500uØ	30		1.5p		P-MD	Ge	100S	TO1	A
15	2N1132/46	90.0MΔ	50n♦				400m	10 Ø	150mØ	30 #Δ	10	45pØ	35n	P-D	Si	200J	TO46	
16#	2SC803	90.0M§	80n		2.0u	1.0u	5.0 Ø	4.0 Ø	400mØ	70	1.0	9.0p		N	Si	175J	TO5	AØ
17	2N1838	90.0M§Δ	200nØ		800nØ		2.0 Ø	1.4 Ø	100mØ	10 Δ	14	27pØ		N	Si	175J	TO5	A
18	2N1839	90.0M§Δ	200nØ		600nØ		2.0 Ø	1.4 Ø	150mØ	10 Δ	9.3	27pØ		N	Si	175J	TO5	A
19#	2SA416	90.0M§	200n	150n	600n	200n	6.0 #	10 Ø	600m	70				P-AD	Ge	75J	TO3	
20#	2SC308	90.0M§	250n		200n	200n	800m	10 Ø	150mØ	65 #	10	10p		N-PL	Si	200J	TO5	AØ
21	2N1840	90.0M§Δ	500nØ		1.2uØ		2 Ø	1.4 Ø	150mØ	10 Δ	9.3	27pØ		N	Si	175J	TO5	A
22#	BD121	95.0M§	80nt	18nt	235nt	80nt	45	10 Ø	1.0mØ	55	650m			N-PE	Si	175J	TO3	CØ
23	TP3638	100M§Δ			170nØ		360m	1.0 Ø	50mØ	30 Δ		20p$		P	Si		X93	A
24▼	TP4257	100MΔ§				15nØ		300mØ	10mØ	120 Øt		3.0p$		P	Si		X93	A
25▼	TP4258	100MΔ§				20nØ		300mØ	10mØ	120 Øt		3.0p$		P	Si		X93	A
26	JAN2N1500	100M§Δ	18n		12n	10n	60m	500mØ	50mØ	14 Δ	4.0	3.0pØ		P	Ge	100J	TO9	A
27	2N2237	100M§Δ	25nØ		600nØ		600m	1.0 Ø	100mØ	125 #Ø	2.5	35pØ		N	Si	150S	TO5	AØ
28#	2SC106	100M§	25n	20n	210n	20n	15 Ø	5.0 Ø	.05m	20	3.0	90pØ	1.8n	N-E	Si	175J	TO8	
29#	2SC107	100M§	25n	20n	210n	20n	15 Ø	5.0 Ø	.05m	20	3.0	90pØ	1.8n	N-E	Si	175J	TO8	
30	2N2938	100M	30nØ		15n	30nØ	300m	350mØ	10mØ	25 Δ	8.0	3.5p		N-PE	Si	200S	TO52	A
31#	BSX95	100M§Δ	30nt	20nt	250n	20nt	1.7 $	10 Ø	150mØ	40 Δ	8.0	25p$Ø		NPE	Si	200J	TO5	A
32#	BSX96	100M§Δ	30nt	20nt	250n	20nt	1.7 $	10 Ø	150mØ	100 Δ	8.0	25p$Ø		N-PEØ	Si	200J	TO5	A
33	TN59	100M§Δ	30nt	10nt	450nt	100nt	3.0 Ø	10 Ø	500mØ	30 Δ				N-PEØ	Si	200J	TO5	A
34	TN60	100M§Δ	30nt	10nt	450nt	100nt	1.8 Ø	10 Ø	500mØ	30 Δ				N-PEØ	Si	200J	TO18	A
35	TN61	100M§Δ	30nt	10nt	450nt	100nt	3.0 Ø	10 Ø	500mØ	30 Δ				N-PEØ	Si	200J	TO5	A
36	TN62	100M§Δ	30nt	10nt	450nt	100nt	1.8 Ø	10 Ø	500mØ	30 Δ				N-PEØ	Si	200J	TO18	A
37#	V205	100M§Δ	35n	29n	300n	15n	1.0 Ø	1.0 Ø	50mØ	40 #		8.0p		P-DPE	Si	175A	TO18	AØ
38	2N3883	100M§Δ	40n	15n	70n	40n	300m	1.0 Ø	200mØ	30 Δ	2.5	8.0pØ		P	Si	100S	TO5	AØ
39	2N4890	100M§Δ	50n	50n	200n	70n	5.0 Ø	2.5 Ø	150mØ	25 Δ	9.3	15p$		P	Si	200S	TO5	AØ
40	TQ59	100M§Δ	50n	10n	450n	120n	3.0 Ø	10 Ø	150mØ	100 Δ	20	10pØ		P-PE	Si	200J	TO5	A
41	TQ59A	100M§Δ	50n	10n	450n	120n	3.0 Ø	10 Ø	150mØ	100 Δ	20	10pØ		P-PE	Si	200J	TO5	A
42	TQ60	100M§Δ	50n	10n	450n	120n	1.8 Ø	10 Ø	150mØ	100 Δ	20	10pØ		P-PE	Si	200J	TO18	A
43	TQ60A	100M§Δ	50n	10n	450n	120n	1.8 Ø	10 Ø	150mØ	100 Δ	20	10pØ		P-PE	Si	200J	TO18	A
44	TQ61	100M§Δ	50n	10n	450n	120n	3.0 Ø	10 Ø	150mØ	50 Δ	20	10pØ		P-PE	Si	200J	TO5	A
45	TQ61A	100M§Δ	50n	10n	450n	120n	3.0 Ø	10 Ø	150mØ	50 Δ	20	10pØ		P-PE	Si	200J	TO5	A
46	TQ62	100M§Δ	50n	10n	450n	120n	1.8 Ø	10 Ø	150mØ	50 Δ	20	10pØ		P-PE	Si	200J	TO18	A
47	TQ62A	100M§Δ	50n	10n	450n	120n	1.8 Ø	10 Ø	150mØ	50 Δ	20	10pØ		P-PE	Si	200J	TO18	A
48	TQ63	100M§Δ	50n	10n	450n	120n	3.0 Ø	10 Ø	150mØ	25 Δ	20	10pØ		P-PE	Si	200J	TO5	A
49	TQ63A	100M§Δ	50n	10n	450n	120n	3.0 Ø	10 Ø	150mØ	25 Δ	20	10pØ		P-PE	Si	200J	TO5	A
50	TQ64	100M§Δ	50n	10n	450n	120n	1.8 Ø	10 Ø	150mØ	25 Δ	20	10pØ		P-PE	Si	200J	TO18	A
51	TQ64A	100M§Δ	50n	10n	450n	120n	1.8 Ø	10 Ø	150mØ	25 Δ	20	10pØ		P-PE	Si	200J	TO18	A
52	2N979	100M§Δ	60n				60m	500mØ	40m	50	12	15p		P-MD	Ge	100S	TO18	A
53	JAN2N1499A	100M§Δ	60n				60m	500mØ	40mØ	20 Δ	20	3.0pØ		P	Ge	100S	TO9	A
54	2N1958A	100M§Δ	60nØ		25n	45nØ	600m	10 Ø	1	15 #Δ		14pØ		N	Si	200J	TO5	AØ
55	2N1959A	100M§Δ	60nØ		25n	45nØ	600m	10 Ø	1	25 #Δ		14pØ		N	Si	200J	TO5	AØ
56#	2SC713	100M§	60n		120n	30n	200m	6.0 Ø	10mØ	90 #	35	2.5p	100n	N-PEt	Si	125J	TO92	D
57#	BFX87	100M§Δ	60nØ			150nØ	600m	10 Ø	1.0mØ	40 Δ		20pØ		P-PE	Si	200J	TO5	AØ
58#	BFX88	100M§Δ	60nØ			150nØ	600m	10 Ø	1.0mØ	40 Δ		20pØ		P-PE	Si	200J	TO5	AØ
59	2N1958	100M§Δ	65nØ		25n	45nØ	2.0 Ø	10 Ø	150mØ	40	3.0	18pØ		N	Si	175J	TO5	AØ
60	2N1959	100M§Δ	65nØ		25n	45nØ	120mØ	10 Ø	150m	80	3.0	18pØ		N	Si	175J	TO5	AØ
61	2N3638	100M§Δ	70n	20n	140n	70n	700mØ	1.0 Ø	50mØ	30 Δ#		20pØ		P	Si	125J	R110a	A
62	2N5142	100M§Δ	70n	50n	150n	75n	700mØ	1.0 Ø	50mØ	30 #Δ		10p$		P	Si	125J	TO105	A
63	2N5143	100M§Δ	70n	50n	150n	75n	500mØ	1.0 Ø	50mØ	30 #Δ		10p$		P	Si	125J	TO106	A
64	MPS3638	100M§Δ	70n			70n	310m	1.0 Ø	50mØ	30 Δ		20pØ		P-EA	Si	135	TO92	A
65	2N2695	100M§Δ	75nØ			170nØ	360m	1.0 Ø	50mØ	30 †Ø#	3.0	20pØ		P-PE	Si	200J	TO46	AØ
66	2N2696	100M§Δ	75nØ			170nØ	360m	1.0 Ø	50mØ	30 †Ø#	3.0	20pØ		P-PE	Si	200J	TO18	AØ
67	2N2927	100M§Δ	75nØ			170nØ	3.0 Ø	1.0 Ø	50mØ	30 †Δ	5.0	20pØ		P	Si	200J	TO5	AØ
68	RT1116	100M	80n		130n	55n	800m	1.0 Ø	150mØ	30 Δ	4.6	15pØ		N-PE	Si	200J	TO5	Ø
69	2N4354	100M§Δ	100nØ		400nØ		800mØ	10 Ø	10mØ	50 #Δ	1.0	30p$		P	Si	125J	RO124b	A
70	2N4355	100M§Δ	100nØ		400nØ		800mØ	10 Ø	10mØ	100 #Δ	1.0	30p$		P	Si	125J	RO124b	A
71	2N4356	100M§Δ	100nØ		400nØ		800mØ	10 Ø	10mØ	50 #Δ	1.0	30p$		P	Si	125J	RO124b	A
72#	BFX38	100M§Δ	100nØ		350n	50n	4.0mØ	5.0 Ø	100mØ	30 Δ#		20pØ		N-DPE	Si	200J	TO5	
73#	BFX39	100M§Δ	100nØ		350n	50n	4.0mØ	5.0 Ø	100mØ	15 Δ#		20pØ		N-DPE	Si	200J	TO5	
74#	BFX40	100M§Δ	100nØ		350n	50n	4.0mØ	5.0 Ø	1.0 Ø	25 Δ#		20pØ		N-DPE	Si	200J	TO5	
75#	BFX41	100M§Δ	100nØ		350n	50n	4.0mØ	5.0 Ø	1.0 Ø	10 Δ#		20pØ		N-DPE	Si	200J	TO5	
76#	2SC108	100M§Δ	110n		100n	110n	600m	2.0 Ø	150mØ	35	4.0	35pØ		N-EM	Si	150J	TO5	
77	2N2380	100M§Δ	125n		130n	65n	1.0 Ø	2.5 Ø	150mØ	15 #Δ	8.7	14pØ		N	Si	175J	TO5	AØ
78	2N2380A	100M§Δ	125n		130n	65n	1.0 Ø	2.5 Ø	150mØ	15 #Δ	10	14pØ		N	Si	175J	TO5	AØ
79	2N5327	100M§Δ	200nØ			900nØ	5.0 $	5.0 Ø	5 Ø	50 Δ	.50			N	Si	200J	TO5	A
80	2N5328	100M§Δ	200nØ			900nØ	30 $	5.0 Ø	5 Ø	50 Δ	.12			N	Si	200J	TO59	A
81#	CP409	100M§	250nØt			500nØt	5.0 Ø	10 Ø	500mØ	150 #		5.0p		N-DPE	Si	200J	TO5	AØ
82	MM2261	100MΔ§	1.0u			1.0u	5.0 Ø	10 Ø	300mØ	25 Δ	3.3	12pØ		NAN	Si	200J	TO5	AØ
83	MM2262	100MΔ§	1.0u			1.0u	5.0 Ø	10 Ø	500mØ	25 Δ	2.0	12pØ		NAN	Si	200J	TO5	AØ
84	MM2263	100MΔ§	1.0u			1.0u	5.0 Ø	10 Ø	750mØ	25 Δ	1.3	12pØ		NAN	Si	200J	TO5	AØ
85	2N4950	100M§Δ	9500n	10nØ	10u	10u	300	3.0 Ø	50 Ø	10 #Δ				N	Si	200S	MT69	AØ
86#	ZT20	110M§	110nØ			175nØ	350m	6.0 Ø	10mØ	30		5.0p		N	Si	150J	TO5	Ø
87#	ZT21	110M§	110nØ			175nØ	350m	6.0 Ø	10mØ	30		5.0p		N	Si	150J	TO5	Ø
88#	ZT22	110M§	110nØ			175nØ	350m	6.0 Ø	10mØ	60		5.0p		N	Si	150J	TO5	Ø
89#	ZT23	110M§	110nØ			175nØ	350m	6.0 Ø	10mØ	60		5.0p		N	Si	150J	TO5	Ø
90#	ZT24	110M§	110nØ			175nØ	350m	6.0 Ø	10mØ	120		5.0p		N	Si	150J	TO5	Ø
91#	ZT40	110M§	110nØ			175nØ	300m	6.0 Ø	10mØ	30		5.0p		N	Si	150J	TO18	Ø
92#	ZT41	110M§	110nØ			175nØ	300m	6.0 Ø	10mØ	30		5.0p		N	Si	150J	TO18	Ø
93#	ZT42	110M§	110nØ			175nØ	300m	6.0 Ø	10mØ	60		5.0p		N	Si	150J	TO18	Ø
94#	ZT43	110M§	110nØ			175nØ	300m	6.0 Ø	10mØ	60		5.0p		N	Si	150J	TO18	Ø
95#	ZT44	110M§	110nØ			175nØ	300m	6.0 Ø	10mØ	120		5.0p		N	Si	150J	TO18	Ø
96#	2G106	120M§	1.35n$	16n▼	70n		150m	250mØ	10mØ	30 Δ	25	5.0p		P-ME	Ge	100A	TO18	
97	2N2800	120M§Δ	45n	25n	225n	45n	800m	10 Ø	150mØ	90 Ø	2.6	25pØ		P	Si	200S	TO5	AØ
98	2N2800/46	120MΔ§	45n	15n	225n	45n	400m	10 Ø	150mØ	90 Ø		25p		P-E	Si	200J	TO46	
99	2N2801	120M§Δ	45n	25n	225n	45n	800m	10 Ø	150mØ	225 Ø	2.6	25pØ		P	Si	200S	TO5	AØ
100	2N2837	120M§Δ	45n	25n	225n	45n	500m	10 Ø	150mØ	90 Ø	2.6	25pØ		P	Si	200S	TO18	AØ
101	2N2838	120M§Δ	45n	25n	225n	45n	500m	10 Ø	150mØ	225 Ø	2.6	25pØ		P	Si	200S	TO18	AØ
102#	BD124	120M§	75nt	15nt	240nt	40nt	15 Ø	5.0 Ø	500mØ	75	500m			N-PE	Si	175J	MD17c	CØ
103#	ZT60	120M§Δ	80nØ			300nØ	350m	6.0 Ø	10mØ	38 Δ	40	8.0pØ		N-PEØ	Si	150J	TO5	Ø
104#	ZT61	120M§Δ	80nØ			300nØ	350m	6.0 Ø	10mØ	38 Δ	40	8.0pØ		N-PEØ	Si	150J	TO5	Ø
105#	ZT62	120M§Δ	80nØ			300nØ	350m	6.0 Ø	10mØ	75 Δ	8.0	8.0pØ		N-PEØ	Si	150J	TO5	Ø
106#	ZT63	120M§Δ	80nØ			300nØ	350m	6.0 Ø	10mØ	35 Δ	8.0	8.0pØ		N-PEØ	Si	200J	TO5	Ø
107#	ZT64	120M§Δ	80nØ			300nØ	350m	6.0 Ø	10mØ	75 Δ	8.0	8.0pØ		N-PEØ	Si	200J	TO5	Ø
108#	ZT66	120M§Δ	80nØ			300nØ	350m	6.0 Ø	10mØ	35 Δ	4.0	8.0pØ		N-PEØ	Si	200J	TO5	Ø
109#	ZT68	120M§Δ	80nØ			300nØ	750m	6.0 Ø	10mØ	35 Δ	40	8.0pØ		N-PEØ	Si	200J	TO5	Ø
110#	ZT80	120M§Δ	80nØ			300nØ	300m	6.0 Ø	10mØ	162 Ø	40	8.0pØ		N-PE	Si	150J	TO18	Ø

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	[3] TYPE No.	[1] fab (Hz)	[2] MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	M A T	MAX. TEMP (°C)	DWG. No.	L C E O A D D E
1#	ZT81	120M§△	80nØ			300nØ	300m	6.0 Ø	10mØ	162 ☑	40	8.0p☑		N-PE	Si	150J	TO18	Ø
2#	ZT82	120M§△	80nØ			300nØ	300m	6.0 Ø	10mØ	250 ☑	20	8.0p☑		N-PE	Si	150J	TO18	Ø
3#	ZT83	120M§△	80nØ			300nØ	300m	6.0 Ø	10mØ	85 ☑	20	8.0p☑		N-PE	Si	200J	TO18	Ø
4#	ZT84	120M§△	80nØ			300nØ	300m	6.0 Ø	10mØ	70 ☑	40	8.0p☑		N-PE	Si	200J	TO18	Ø
5#	ZT86	120M§△	80nØ			300nØ	300m	6.0 Ø	10mØ	85 ☑	40	8.0p☑		N-PE	Si	200J	TO18	Ø
6#	ZT87	120M§△	80nØ			300nØ	300m	6.0 Ø	10mØ	250 ☑	40	8.0p☑		N-PE	Si	200J	TO18	Ø
7#	ZT88	120M§△	80nØ			300nØ	300m	6.0 Ø	10mØ	170 ☑	20	8.0p☑		N-PLØ	Si	200J	TO18	Ø
8#	ZT89	120M§△	80nØ			300nØ	300m	6.0 Ø	10mØ	250 ☑	20	8.0p☑		N-PLØ	Si	200J	TO18	Ø
9#	ZT110	120M§△	80nØ			300nØ	300m	6.0 Ø	10mØ	162 ☑	40	8.0p☑		N-PLØ	Si	150J	TO46	Ø
10#	ZT111	120M§△	80nØ			300nØ	300m	6.0 Ø	10mØ	162 ☑	40	8.0p☑		N-PLØ	Si	150J	TO46	Ø
11#	ZT112	120M§△	80nØ			300nØ	300m	6.0 Ø	10mØ	250 ☑	40	8.0p☑		N-PLØ	Si	150J	TO46	Ø
12#	ZT113	120M§△	80nØ			300nØ	300m	6.0 Ø	10mØ	85 ☑	20	8.0p☑		N-PLØ	Si	200J	TO46	Ø
13#	ZT114	120M§△	80nØ			300nØ	300m	6.0 Ø	10mØ	170 ☑	20	8.0p☑		N-PLØ	Si	200J	TO46	Ø
14#	ZT116	120M§△	80nØ			300nØ	300m	6.0 Ø	10mØ	85 ☑	20	8.0p☑		N-PLØ	Si	200J	TO46	Ø
15#	ZT117	120M§△	80nØ			300nØ	300m	6.0 Ø	10mØ	250 ☑	40	8.0p☑		N-PLØ	Si	150J	TO46	Ø
16#	ZT118	120M§△	80nØ			300nØ	300m	6.0 Ø	10mØ	170 ☑	20	8.0p☑		N-PLØ	Si	200J	TO46	Ø
17#	ZT119	120M§△	80nØ			300nØ	300m	6.0 Ø	10mØ	250 ☑	20	8.0p☑		N-PLØ	Si	200J	TO46	Ø
18#	2SC309	120M§	250n		200n	200n	800m	10 Ø	150mØ	65 #	10	10p		N-PL	Si	200J	TO5	AØ
19#	2SC310	120M§	250n		200n	200n	800m	10 Ø	150mØ	65 #	10	10p		N-PL S	i	200J	TO5	AØ
20	JAN2N3996	120M§☑	300nØ			1.5uØ	2.0m	2.0 Ø	50mØ	30 △		150p☑		N	Si	200S	MT53	M
21	JAN2N3997	120M§☑	300nØ			2.0uØ	2.0m	2.0 Ø	50mØ	60 △		150p☑		N	Si	200S	MT53	M
22	JAN2N3998	120M§☑	300nØ			1.5uØ	2.0m	2.0 Ø	50mØ	30 △		150p☑		N	Si	200S	MT42a	A
23	JAN2N3999	120M§☑	300nØ			2.0uØ	2.0	2.0 Ø	50mØ	60 △		150p☑		N	Si	200S	MT42a	A
24#	BSY51	125M§△	8.0n	2.0n		12n	800m	10 Ø	150mØ	40 #△	1.7	12p☑		N	Si	200J	TO5	
25#	BSY52	125M§△	8.0n	2.0n		12n	800m	10 Ø	150mØ	135 #△	1.7	12p☑		N	Si	200J	TO5	
26▼	BSW69	130M†					125m#	2.0 Ø	4.0mØ	30 △		2.0p$		N	Si	125J		
27	2N3072	130M§△	40nØ		100nØ		3.0 Ø	1.0 Ø	50mØ	30 #☑	5.0	10p☑		P	Si	200J	TO5	AØ
28	2N3073	130M§△	40nØ		100nØ		1.2 Ø	1.0 Ø	50mØ	30 #☑	5.0	10p☑		P	Si	200J	TO18	AØ
29	2N3120	130M§△	40nØ		100nØ			1.0 Ø	50mØ	30 #△	5.0	10p☑		P	Si	200J	TO5	AØ
30	2N3121	130M§△	40nØ		100nØ			1.0 Ø	50mØ	30 #△	5.0	10p☑		P	Si	200J	TO18	AØ
31#	BUY11	140M§	9.0n†	9.0n	310n†	15n†	2.5m	2.0 Ø	100mØ	65		23p		N-PE	Si	150J	TO3	
32#	BSY25	140M§	10n†	9.0n†	350n†	15n†	600m	2.0 Ø	500mØ	40		35p☑		N-PEØ	Si	150A	TO5	Ø
33#	BFV82B	140M§△	20n	10n	90n	20n	300m	.50 Ø	10mØ	10 △		5.0p☑		PPE	Si	200J	u26a	B
34#	BFV82C	140M§△	20n	10n	90n	20n	300m	.50 Ø	10mØ	20 △		5.0p☑		PPE	Si	200J	u26a	B
35#	BFV30	140M§△	35nØ			150nØ	150m	.50 Ø	10mØ	30 △	30	7.0p☑		PPE	Si	200J	u34b	P
36#	NKT603F	140M	100n		230n	35n	80m	6.0 Ø	1.0mØ	40 △	35	3.5p☑		P	Ge	75J	TO7	H
37	2N1837	140M§△	200nØ		500nØ		2.0 Ø	.80 Ø	150mØ	10 △	5.3	18p☑		N	Si	175J	TO5	A
38	2N1837A	140M§△	200nØ		500nØ		2.8 Ø	.80 Ø	150mØ	10 △	5.3	18p☑		N	Si	175J	TO5	AØ
39#	2SA537AH	150M§			290n	42n	750m	4.0 Ø	50mØ	30 △		18p		P	Si	200J	TO39	
40#	2SA537H	150M§			230n	42n	750m	4.0 Ø	50mØ	30 △		18p		P	Si	200J	TO39	
41	TP3638A	150M§△			170nØ		360m	1.0 Ø	50mØ	100 △		10p$		P	Si		X93	A
42#	2S101	150M§	5.0n†	8.0n†		5.0n†		5.0 Ø	10mØ	60 ☑	50	3.0p		N	Si	175A	TO18	
43#	BSY53	150M§△	8.0n	2.0n		12n	800m	10 Ø	150mØ	80 #△	1.7	12p☑		N	Si	200J	TO5	
44#	BSY54	150M§△	8.0n	2.0n		12n	800m	10 Ø	150mØ	100 #△	2.4	12p☑		N	Si	200J	TO5	
45	2N3262	150M§△	20n	40nØ		750nØ	1.0	4.0 Ø	500uØ	40	600m	20p☑		N-PLD	Si	200J	TO39	AØ
46	2N4402	150M§△	20n	15n	25n	30n	310m	1.0 Ø	10mØ	30 △		9p$☑		P	Si	135J	TO92	A
47#	2SC912	150M§	20n	5.0n	100n	40n	150m	6.0 Ø	10mØ	90 #	35	2.5p	100n	N-PE	Si	150J	R126	A
48	2N1499B	150M§△	30n		120n		75m	.30 Ø	10mØ	40 △	15	3.0p☑		P	Ge	100S	TO9	A
49	2N3468	150M§△	30n	10n	60n	30n	1.0	1.0 Ø	150mØ	25 #△		25p☑		P	Si	200S	TO5	AØ
50	2N4225	150M§△	30n	5.0n	50n	25n		5.0 Ø	2 Ø	25 △		25p		N	Si	175	R114	
51	2N4226	150M§△	30n	5.0n	50n	25n		5.0 Ø	2 Ø	20 △		25p		N	Si	175	R114	
52	2N5146	150M§△	30n	10n	80n	30n	400m	2.0 Ø	1 Ø	20 △	1.0	20p$		P	Si	200S	L56	
53#	2SC366G	150M§	30n†	15n†	100n†	35n†	300m	1.0 Ø	100mØ	150 ☑*	5.0	15p☑		N-PE S	i	125S	R067a	B
54	MD3467	150M§△	30n	10n	80n	30n	2.0 Ø	1.0 Ø	500mØ	20 △#		20p$☑		P-AN	Si	200J	L17k	
55	MD3467F	150M§△	30n	10n	80n	30n	2.5 Ø	1.0 Ø	500mØ	20 △#		20p$☑		P-AN	Si	200J	L17d	
56	MD3762	150M§△	30n	10n	80n	30n	2.0 Ø	2.0 Ø	1.0 Ø	20 △#		20p$☑		P-AN	Si	200J	L17k	
57	MD3762F	150M§△	30n	10n	80n	30n	2.5 Ø	2.0 Ø	1.0 Ø	20 △#		20p$☑		P-AN	Si	200J	L17d	
58	MQ3467	150M§△	30n	10n	80n	30n	5.0 Ø	1.0 Ø	500mØ	20 △#		20p$☑		P-AN	Si	200J	L56	
59	MQ3762	150M§△	30n	10n	80n	30n	5.0 Ø	2.0 Ø	1.0 Ø	20 △#		20p$☑		P-AN	Si	200J	L56	
60	2N3444	150M§△	35n	15n	40n	30n	100m	1.0 Ø	500mØ	60 ☑#		12p☑		N	Si	200S	TO5	AØ
61	2N3554	150M§△	35n	15n	65n	40n	800m	1.0 Ø	750mØ	100 ☑		25p☑		N	Si	200S	TO5	AØ
62	2N3763	150M§△	35n	8.0n	80n	35n	1.0	1.0 Ø	150mØ	40 △	10	15p☑		P	Si	200S	TO5	AØ
63	2N3765	150M§△	35n	8.0n	80n	35n	500m	1.5 Ø	1 Ø	20 △	10	15p☑		P	Si	200S	TO46	AØ
64	2N3245	150M§△	40n	15n	120n	45n	5.0 Ø	1.0 Ø	500mØ	30 #△		25p☑		P	Si	200J	TO5	AØ
65#	BFW31	150M§△	40nØ†			250nØ†	1.0 Ø	10 Ø	10mØ	120	4.0	12p☑	100p	P-PEØ	Si	150A	TO18	AØ
66#	BFW32	150M§△	40nØ†			250nØ†	1.0 Ø	10 Ø	10mØ	120	4.0	12p☑	100p	N-PEØ	Si	150A	TO18	AØ
67	EN2905	150M§△	40n	10nØ	80n	30n	300m	10 Ø	150mØ	300 #☑		8.0p☑		P	Si	125J	TO105	A
68	EN2907	150M§△	40n	10nØ	80n	30n	200m	10 Ø	150mØ	300 #☑		8.0p☑		P	Si	125J	TO106	A
69	EN3502	150M§△	40nØ		100nØ		300m	10 Ø	150mØ	100 #△		8.0p☑		P	Si	125J	TO106	A
70	EN3504	150M§△	40nØ		100nØ		200m	10 Ø	150mØ	100 #△		8.0p☑		P	Si	125J	TO105	A
71	2N5372	150M§△	50nØ			150nØ	360m	10 Ø	10mØ	30 #△		10p$		P	Si	150J	X93	A
72	2N5373	150M§△	50nØ			150nØ	360m	10 Ø	10mØ	75 #△		10p$		P	Si	150J	X93	A
73	2N5374	150M§△	50nØ			175nØ	360m	10 Ø	10mØ	150 #△		10p$		P	Si	150J	X93	A
74	2N5375	150M§△	50nØ			175nØ	360m	10 Ø	10mØ	30 #△		10p$		P	Si	150J	X93	A
75#	BSW42	150M§△	50n†	20n†	200n†	50n†	300m	4.5 Ø	2.0mØ	75 △	6.0	8.0p☑		N-E	Si	125J	R110	A
76#	BSW42A	150M§△	50n†	20n†	200n†	50n†	300m	4.5 Ø	2.0mØ	75 △	6.0	8.0p☑		N-E	Si	125J	R110	A
77#	BSW43	150M§△	50n†	20n†	200n†	50n†	300m	4.5 Ø	2.0mØ	180 △	6.0	8.0p☑		N-E	Si	125J	R110	A
78#	BSW43A	150M§△	50n†	20n†	200n†	50n†	300m	4.5 Ø	2.0mØ	180 △	6.0	8.0p☑		N-E	Si	125J	R110	A
79#	BSW92	150M§△	50n†	20n†	200n†	50n†	300m†	4.5 Ø	2.0mØ	30 △	6.0	8.0p☑		N-E	Si	125J	R110	A
80#	BSX51	150M§△	50n†	20n†	200n†	50n†	300m	4.5 Ø	2.0mØ	225 ☑	6.0	5.0p		N-PE	Si	175A	TO18	Ø
81#	BSX51A	150M§△	50n†	20n†	200n†	50n†	30m	4.5 Ø	2.0mØ	225 ☑	6.0	4.0p		N-PE	Si	175A	TO18	Ø
82#	BSX52	150M§△	50n†	20n†	200n†	50n†	300m	4.5 Ø	2.0mØ	540 ☑	6.0	5.0p		N-PE	Si	175A	TO18	Ø
83#	BSX52A	150M§△	50n†	20n†	200n†	50n†	300m	4.5 Ø	2.0mØ	540 ☑	6.0	4.0p		N-PE	Si	175A	TO18	Ø
84	TZ551	150M§△	50nØ			150nØ	360m	10 Ø	1.0mØ	20 △		10p$		P-PL	Si	150J	TO98	B
85	TZ552	150M§△	50nØ			150nØ	360m	10 Ø	1.0mØ	50 △		10p$		P-PL	Si	150J	TO98	B
86	TZ553	150M§△	50nØ			175nØ	360m	10 Ø	1.0mØ	100 △		10p$		P-PL	Si	150J	TO98	B
87	TZ554	150M§△	50nØ			175nØ	360m	10 Ø	1.0mØ	20 △		10p$		P-PL	Si	150J	TO98	B
88	2N1495	150M§△	55n				250m	.50 Ø	200mØ	25 △	1.5	6.5p☑		P	Ge	100S	TO9	AØ
89	2N1496	150M§△	55n				500m	.50 Ø	200mØ	25 △	1.5	6.5p☑		P	Ge	100S	TO31	AØ
90	2N3081	150M§△	60nØ			175nØ	600m	10 Ø	150mØ	30 †△	2.0	13p☑		P-PE	Si	200J	TO5	AØ
91	2N3081/46	150M§△	60nØ			175nØ	400m	10 Ø	150mØ	30 †△	2.0	13p☑		P-PE	Si	200J	TO46	
92	2N4406	150M§△	60n	15n	175n	50n	5.0	5.0 Ø	150mØ	30 #△		15p$☑		P	Si	200S	TO39	AØ
93	2N4407	150M§△	60n	15n	175n	50n	5.0	5.0 Ø	150mØ	80 #△		15p$☑		P	Si	200S	TO39	AØ
94#	2SC189	150M§	60n		700n	300n	600m	10 Ø	150mØ	20 △	250m	9.0p		N-PL	Si	175J	TO5	
95#	2SC621	150M§	60n		120n	30n	150m	6.0 Ø	10mØ	75 #	60	2.5p	100n	N-PE	Si	150J	R126	A
96#	2SC868	150M§	60nØ		120n	30n	200m	6.0 Ø	1.0mØ	35 △				N-PE	Si	125J	X20e	B
97#	2SC869	150M§	60nØ		120n	30n	200m	6.0 Ø	1.0mØ	35 △				N-PE	Si	125J	X20e	B
98#	BFX50	150M§△	60nØ			200nØ	350m	10 Ø	150mØ	30 △	1.2	12p☑		NPE	Si	200J	TO18	AØ
99#	BFX52	150M§△	60nØ			200nØ	350m	10 Ø	150mØ	60 △	1.2	12p☑		N-PE	Si	200J	TO18	AØ
100	2N3638A	150M§△	70n	20n	140n	70n	700mØ	10 Ø	1.0mØ	80 △		10p☑		P	Si	125J	R110a	A
101	GET3638	150M§△	70n	20n	140n	70n	360m	10 Ø	1.0mØ	30 △		10p$☑		P-PE	Si	125J	TO18	
102	GET3638A	150M§△	70n	20n	140n	70n	360m	10 Ø	1.0mØ	80 △		10p$☑		P-PE	Si	125J	TO18	
103	MPS3638A	150M§△	70n	20n	140n	70n	310m	1.0 Ø	50mØ	100 △		10p☑		P-EA	Si	135	TO92	A
104	2N2400	150M§△	75nØ	140n$		130n	150m	.50 Ø	10mØ	30 △	22	4.0p☑		P	Ge	100S	TO18	A
105	2N2086	150M§△	85n		130n	55n	2.0 Ø	1.5 Ø	150mØ	20 △	4.5	12p☑		N	Si	175J	TO5	AØ
106	2N2087	150M§△	85n		100n	55n	2.0 Ø	1.0 Ø	150mØ	120 ☑	3.3	12p☑		N	Si	175J	TO5	AØ
107	2N711A	150M§	100nØ		150n	150n	150m	.50 Ø	10mØ	25 △	11	6.0p☑		P-ME G	e	100S	TO18	AØ
108	2N711B	150M§	100nØ		140n	110n	150m	.50 Ø	10mØ	30 △	9.0	6.0p☑		P-ME G	e	100S	TO18	AØ
109	2N2315	150M	100n†				400m	10mØ	150mØ	70 #	10	20p		N-PL	Si	175J	TO46	AØ
110	2N2479	150M§△	100n		130n	55n	600m	1.5mØ	150mØ	120 ☑		14p		N-PE	Si	175A	TO5	AØ

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	MAT	MAX. TEMP (°C)	DWG. No.	LEAD
1	2N2310	150M	120nt				400m	10 Ø	200mØ	60	2.5	14p		N-PL	Si	200J	TO46	AØ
2	2N2311	150M	120nt				400m	10 Ø	200mØ	60	2.5	14p		N-PL	Si	200J	TO46	AØ
3	2N2312	150M	120nt				400m	10 Ø	200mØ	20		14p		N-PL	Si	200J	TO46	AØ
4	2N2313	150M	120nt				400m	10 Ø	200mØ	20		14p		N-PL	Si	200J	TO46	AØ
5#	ZT180	150M§	120ntØ			250ntØ	300m	6.0 Ø	10mØ	38 Δ	20	15p		P-PLØ	Si	150J	TO18	AØ
6#	ZT181	150M§	120ntØ			250ntØ	300m	6.0 Ø	10mØ	38 Δ	20	15p		P-PLØ	Si	150J	TO18	AØ
7#	ZT182	150M§	120ntØ			250ntØ	300m	6.0 Ø	10mØ	75 Δ	20	15p		P-PLØ	Si	150J	TO18	AØ
8#	ZT183	150M§	120ntØ			250ntØ	300m	6.0 Ø	10mØ	38 Δ	8.0	15p		P-PLØ	Si	150J	TO18	AØ
9#	ZT184	150M§	120ntØ			250ntØ	300m	6.0 Ø	10mØ	75 Δ	8.0	15p		P-PLØ	Si	150J	TO18	AØ
10#	ZT187	150M§	120ntØ			250ntØ	300m	6.0 Ø	10mØ	75 Δ	20	15p		P-PLØ	Si	150J	TO18	AØ
11#	ZT189	150M§	120ntØ			250ntØ	300m	6.0 Ø	10mØ	75 Δ	4.0	15p		P-PLØ	Si	150J	TO18	AØ
12♦#	ZT280	150M§Δ	120ntØ			250ntØ	300m	6.0 Ø	10mØ	38 Δ#	20	15p☑		P-PLØ	Si	150J	R81k	AØ
13♦#	ZT281	150M§Δ	120ntØ			250ntØ	300m	6.0 Ø	10mØ	38 Δ#	20	15p☑		P-PLØ	Si	150J	R81k	AØ
14♦#	ZT282	150M§Δ	120ntØ			250ntØ	300m	6.0 Ø	10mØ	75 Δ#	20	15p☑		P-PLØ	Si	150J	R81k	AØ
15♦#	ZT283	150M§Δ	120ntØ			250ntØ	300m	6.0 Ø	10mØ	38 Δ#	4.0	15p☑		P-PLØ	Si	150J	R81k	AØ
16♦#	ZT284	150M§Δ	120ntØ			250ntØ	300m	6.0 Ø	10mØ	75 Δ#	4.0	15p☑		P-PLØ	Si	150J	R81k	AØ
17♦#	ZT287	150M§Δ	120ntØ			250ntØ	300m	6.0 Ø	10mØ	75 Δ#	20	15p☑		P-PLØ	Si	150J	R81k	AØ
18#	2SC306	150M§	150n		300n	150n	800m	10 Ø	150mØ	85 #	4.7	10p		N-PL	Si	200J	TO5	AØ
19	2N3495	150M§Δ	300nØ		1.0uØ		600m	10 Ø	50mØ	40 #Δ	35	6.0p☑		P	Si	200S	TO5	AØ
20	2N3497	150M§Δ	300nØ		1.0uØ		400m	10 Ø	50mØ	40 #Δ	35	6.0p☑		P	Si	200S	TO18	AØ
21	2N3634	150M§Δ	400nØ			600nØ	5.0 Ø	10 Ø	10mØ	50 Δ	40	10p☑		P	Si	200S	TO5	AØ
22	2N3636	150M§Δ	400nØ			600nØ	5.0 Ø	10 Ø	10mØ	50 Δ	40	10p☑		P	Si	200S	TO5	AØ
23	2N996	160MΔ	20nt	14nt	80nt	22nt	360m	1.0 Ø	20mØ	35 Δ#	5.0	7.5p		P-PE	Si	200J	TO18	AØ
24	2N1499A	160M§	60n	120n$			60m	500mØ	40m	50	25	1.5p	1.5nt	P-MD	Ge	100S	TO9	A
25	2N2317	160M	80nt				350m	10mØ	150mØ	80	10	18p		N-PL	Si	175J	TO46	AØ
26	JAN2N3418	160M§☑	300nØ			1.2uØ	1.0	5.0 Ø	5.0 Ø	10 Δ#		150p☑		N	Si	200A	TO5	A
27	JAN2N3419	160M§☑	300nØ			1.2uØ	1.0	5.0 Ø	5.0 Ø	10 Δ#		150p☑		N	Si	200A	TO5	A
28	JAN2N3420	160M§☑	300nØ			1.2uØ	1.0	5.0 Ø	5.0 Ø	15 Δ#		150p☑		N	Si	200A	TO5	A
29	JAN2N3421	160M§☑	300nØ			1.2uØ	1.0	5.0mØ	5.0 Ø	15 Δ#		150p☑		N	Si	200A	TO5	A
30	PT2635	170M§	25n	25n	300n	60n	2.5	28 Ø	350mØ	15 #Δ		30p		N	Si	200J	TO5	
31	PT2670	170M§	25nt	25nt	300nt	60nt	1.0m	20 Ø	350mØ	20 #Δ		25p		N	Si		TO5	
32	2N5022	170M§Δ	30n	15n	65n	30n	4.0 Ø	1.0 Ø	100mØ	15 Δ	.80	25p$		P	Si	200S	TO39	AØ
33	2N5242	170M§Δ	30n	15n	65n	30n	500m	1.0 Ø	.50mØ	100 t#☑				P	Si	125S	TO105	A
34	2N5243	170M§Δ	30n	15n	65n	30n	500m	1.0 Ø	.50mØ	100 t#☑				P	Si	125S	TO105	A
35	2N1500	175M§	13n				60m	500mØ	10m	70 †		1.5p		P-MD	Ge	100S	TO9	A
36	2N3467	175M§Δ	30n	10n	60n	30n	1.0	1.0 Ø	150mØ	40 #Δ		25p☑		P	Si	200S	TO5	AØ
37#	BFV52	175M§Δ	30n	15n	50n	30n	150m	1.0 Ø	500mØ	25 Δ	2.3	12p☑		NPE	Si	200J	u34b	P
38#	BFV96	175M§Δ	30n	15n	60n	30n	400m	1.0 Ø	500mØ	150 *☑		15p☑		N-PE	Si	175	L56f	
39#	BFV96N	175M§Δ	30n	15n	60n	30n	400m	1.0 Ø	500mØ	150 *☑		15p☑		N-PE	Si	175	L56g	
40	2N3244	175M§Δ	35n	15n	140n	45n	5.0 Ø	1.0 Ø	500mØ	50 #Δ		25p☑		P	Si	200J	TO5	AØ
41	2N3253	175M§Δ	35n	15n	40n	30n	5.0 Ø	1.0 Ø	375mØ	75 #☑		12p☑		N	Si	200J	TO5	AØ
42#	BFV55	175M§Δ	35n	15n	50n	30n	150m	1.0 Ø	500mØ	25 Δ	2.3	12p☑		NPE	Si	200J	u34b	P
43	40450	175M§	50n	25n	500n	75n	1.0	12 Ø	10mØ	175 †	1.2	20p$☑	20nt	N-PE†	Si	175J	R119	
44	40451	175M§	50n	25n	500n	75n	1.0	12 Ø	10mØ	200 †	1.0	20p$☑	20nt	N-PEØ	Si	175J	R119	
45#	BFV50	175M§Δ	65nØ			70nØ	150m	10 Ø	500mØ	15 Δ	3.3	12p☑		NPE	Si	200J	u34b	P
46#	BFX45	175M§Δ	200nØ	30nt	150nt	40nt	125m#	0.0	10m	100 Δ	20	8.0p$☑		N-PEØ	Si	125J	MM13	F
47#	BSX68	175M§Δ	200nØ	30nt	150nt	40nt	125m*	0.0	10mØ	300 ☑	25	8p$☑		NPE	Si	125J	MM13	F
48#	BSX69	175M§Δ	200nØ	30nt	150nt	40nt	125m*	0.0	10mØ	180 ☑	20	8.0p$☑		N-PE	Si	125J	MM13	F
49#	2SC284H	180M§					350m	6.0 Ø	10mØ	65		10p		N	Si	175J	TO1	
50	2N3762	180M§Δ	35n	8.0n	80n	35n	1.0	1.0 Ø	150mØ	40 Δ	10	15p☑		P	Si	200S	TO5	AØ
51	2N3764	180M§Δ	35n	8.0n	80n	35n	500m	1.5 Ø	1 Ø	30 Δ	10	15p☑		P	Si	200S	TO46	AØ
52#	2SC46	180M§	40n		800n	600n	600m	6.0 Ø	1.0mØ	50	6.0	15p	35nt	N-ME	Si	150J	TO5	
53#	2SC47	180M§	40n		800n	600n	720m	6.0 Ø	1.0mØ	50	6.0	15p	35nt	N-ME	Si	175J	TO5	
54#	2SC48	180M§	40n		800n	600n	600m	6.0 Ø	1.0mØ	50	6.0	15p	35nt	N-ME	Si	150J	TO5	
55#	2SC61	180M§	40n		800n	600n	1.2	6.0 Ø	1.0m	50		15p	35nt	N-ME	Si	175J	R56	
56#	2SC190	180M§	50n		700n	300n	600m	10 Ø	150mØ	30 Δ	250m	9.0p		N-PL	Si	175J	TO5	
57	2N1253	180M	80n		150nØ		600m	10 Ø	150mØ	45 #	10	45p☑		N-D	Si	175J	TO5	AØ
58#	2SC802	180M§	100n		1.0u	80n	1.0 Ø	4.0 Ø	150mØ	30		5.0p		N	Si	175J	TO5	
59	2N706/46	200M§Δ			60n		400m	1.0 Ø	10mØ	20 †Δ	60	6.0p☑		N-E	Si	175J	TO46	A
60	TI485	200M		175n♦			300m	10 Ø	10m	38	65	6.0p☑		N-ME	Si	150J	TO18	AØ
61	TIS44	200M§Δ			60n		250m	1.0 Ø	10mØ	20 #Δ		6.0p☑		P-E	Si	150J	TO92	
62#	BLY33	200M§Δ	10nt	27nØ	130nØ	16nt	100m	2.0 Ø	10mØ	55		4.0p		N-PE	Si	100J	u18	
63	UD3005	200M§Δ	10n	40n	250n	90n	250m	10 Ø	100uØ	35	27	8.0p☑		N-PEØ	Si	200S	L56a	
64	UD3006	200M§Δ	10n	40n	250n	90n	250m	10 Ø	100uØ	35	27	8.0p☑		P-PEØ	Si	200S	L56b	
65	UD3007	200M§Δ	10n	40n	250n	90n	250m	10 Ø	.10mØ	35	27	8p☑		PEØ	Si		L59	
66#	BFY26	200M§Δ	13nt	9.0nt	400nt	300nt	360m	9.0 Ø	10mØ	26 Δ	150	5.5p☑		N-PL	Si	200J	TO18	
67	2N3426	200M§Δ	15n	5.0n	20n	15n	3.0 Ø	.50 Ø	300mØ	120 #☑	25	25p☑		N	Si	200J	R94	AØ
68	LDS210	200M§Δ	15nØ			50nØ	360m	1.0 Ø	150mØ	30 Δ#		10p☑		NPL	Si	150J	u34c	P
69	MMT2222	200M§Δ	16nØt			160nØt	225m	10 Ø	10mØ	75 Δ		3.5p		N-ANt	Si	135J	u43	D
70	2N783	200M§Δ	18nØ		10n	30nØ	1.0 Ø	1.0 Ø	10mØ	80 ☑	25	3.5p☑		N	Si	175J	TO18	AØ
71	MMT3905	200M§Δ	18nt	25nt	140nt	15nt	225m	1.0 Ø	1.0mØ	40 Δ	25	4.5p☑		P	Si	135J	u23c	
72	2N717A	200M§	20n				1.8 Ø							N-PL	Si		TO18	Ø
73	2N784	200M§Δ	20nØ		15n	40nØ	1.0 Ø	1.0 Ø	10m	25 †	19	3.5p☑		N	Si	175J	TO18	AØ
74	2N2411	200M§	20n	10n	90n	20n	300m	500mØ	10mØ	35	20	3.7p		P-PE	Si	200J	TO18	AØ
75	2N2412	200M§	20n	10n	90n	20n	300m	500mØ	10mØ	55	20	3.7p		P-EPL	Si	200J	TO18	AØ
76	2N4400	200M§Δ	20n	15n	225n	30n	310m	1.0 Ø	150mØ	50 #Δ		7p$☑		N	Si	135J	TO92	A
77	2N4403	200M§Δ	20n	15n	25n	30n	310m	1.0 Ø	1.0mØ	60		9p$☑		P	Si	135J	TO92	A
78#	2SC641H	200M§Δ	20nØt		30n	20nØt	100m	1.0 Ø	10mØ	200 ☑*		6.0p☑		N-Et	Si	125J	MM12c	A
79#	2SC841H	200M§Δ	20nØt		30n	20nØt	100m	1.0 Ø	10mØ	200 ☑		6.0p☑		N-PE	Si	175		
80	MMT2907	200M§Δ	20nØt			150nØt	225m	10 Ø	10mØ	75 Δ		4.8p		P-ANt	Si	135J	u43	D
81	FT5040	200M§	23nØ			200nØ	4.0 Ø	1.0 Ø	10mØ	25 Δ#		35p$☑		P-PEØ	Si	125J	TO105	A
82	2N919	200M§Δ	25n$				1.2 Ø	1.0 Ø	10mØ	60 ☑	20	7.0p☑		N	Si	200J	TO18	WØ
83	2N920	200M§Δ	25n$				1.2 Ø	1.0 Ø	10mØ	120 ☑	20	7.0p☑		N	Si	200J	TO18	WØ
84	2N4404	200M§Δ	25n	15n	175n	35n	5.0 Ø	5.0 Ø	10mØ	40 #Δ		10p$☑		P	Si	200S	TO39	AØ
85	2N4405	200M§Δ	25n	15n	175n	35n	5.0 Ø	5.0 Ø	10mØ	100 #Δ		10p$☑		P	Si	200S	TO39	AØ
86#	2SA495G	200M§	25nØt		300nt	35nt	200m	1.0 Ø	10mØ	240 ☑*	50	7.0p☑		P-PEt	Si	125S	R67a	B
87#	BSY26	200M§Δ	27nØ		50n	130nØ	300m	2.0 Ø	50mØ	60 ☑	35	6.0p☑		N-PE	Si	175J	TO18	AØ
88#	BSY27	200M§Δ	27nØ		50n	130nØ	300m	2.0 Ø	50mØ	120 ☑	35	6.0p☑		N-PE	Si	175J	TO18	AØ
89	2N3252	200M§Δ	30n	15n	40n	30n	5.0 Ø	1.0 Ø	500mØ	90 #☑		12p☑		N	Si	200J	TO5	AØ
90	2N5023	200M§Δ	30n	15n	65n	30n	1 Ø	1.0 Ø	100mØ	30 Δ	1.7	25p$		P	Si	200S	TO39	AØ
91#	BSX97	200M§Δ	30nØt			200nØt	400m	10 Ø	150mØ	40 Δ#	3.0	5.0p		N-PE	Si	175A	TO18	Ø
92	FT5041	200M§	30nØ			250nØ	4.0 Ø	1.0 Ø	10mØ	30 Δ#		35p$☑		P-PEØ	Si	125J	TO105	A
93	LDA404	200M§Δ	30nØ			225nØ	360m	10 Ø	150mØ	40 #Δ	2.6	8.0p☑		N-PE	Si	150J	u34	P
94	LDA405	200M§Δ	30nØ			225nØ	360m	10 Ø	150mØ	100 #Δ	2.6	8.0p☑		N-PE	Si	150J	u34	P
95	MM3724	200M§Δ	30nØ			50nØ	1.0	2.0 Ø	500mØ	25 Δ		9.0p$☑		N-EA	Si	200J	TO5	AØ
96	MM3725	200M§Δ	30nØ			50nØ	1.0	2.0 Ø	500mØ	25 Δ		9.0p$☑		N-EA	Si	200J	TO5	AØ
97	MM3726	200M§Δ	30nØ			50nØ	1.0	2.0 Ø	500mØ	25 Δ		10p$☑		P-EA	Si	200J	TO5	AØ
98	2N3502	200M§Δ	35n	25n	70n	50n	700m	10 Ø	10m	80 Δ	2.6	8.0p☑		P	Si	200J	TO5	AØ
99	2N3503	200M§Δ	35n	25n	70n	50n	700m	10 Ø	10m	80 Δ	2.6	8.0p☑		P	Si	200J	TO5	AØ
100	2N3504	200M§Δ	35n	25n	70n	50n	400m	10 Ø	10m	80 Δ	2.6	8.0p☑		P	Si	200J	TO18	AØ
101	2N3505	200M§Δ	35n	25n	70n	50n	400m	10 Ø	10m	80 Δ	2.6	8.0p☑		P	Si	200J	TO18	AØ
102	2N3644	200M§Δ	35n	25n	70n	50n	700mØ	10 Ø	100uØ	40 Δ		8.0p☑		P	Si	125J	R110a	A
103	2N3645	200M§Δ	35n	25n	70n	50n	700mØ	10 Ø	100uØ	40 Δ		8.0p☑		P	Si	125J	R110a	A
104	2N3905	200M§Δ	35n	35n	200n	60n	310m	1.0 Ø	.10mØ	30 #Δ		4.5p☑		PØ	Si	135J	TO92	A
105	2N4969	200M§Δ	35n	20n	300n	80n	500mØ	10 Ø	150mØ	40 #Δ		8.0p$		N	Si	125S	TO106	A
106	GI3644	200M§	35n	25n	70n	50n	300m	10 Ø	1.0mØ	80	50	8.0p☑			Si	125	TO18	A
107	LDA452	200M§Δ	35nØ			150nØ	360m	10 Ø	300mØ	20 #Δ	2.6	8.0p		P-PE	Si	150J	u34	P
108	LDA453	200M§Δ	35nØ			150nØ	360m	10 Ø	300mØ	30 #Δ	2.6	8.0p		P-PE	Si	150J	u34	P
109	MM3905	200M§Δ	35n	35n	200n	60n	360m	1.0 Ø	100uØ	30 Δ#		5.0p☑		PANØ	Si	200J	TO52	A
110	JAN2N706	200M§Δ	40nØ		35n	75nØ	300m	1.0 Ø	10mØ	30 Δ		6.0p☑		N	Si	300S	TO18	AØ

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	M A T	MAX. TEMP (°C)	DWG. No.	L C E O A D D E
1	2N1708	200M§△	40nØ			75nØ	300m	1.0 Ø	10m	20 △	22	6.0pⓅ		N-PE	Si	175	TO46	AØ
2	2N2205	200M§△	40nØ			75nØ	300m	1.0 Ø	10m	20 △	22	6.0pⓅ		N-PE	Si	175	TO46	AØ
3	2N2206	200M§△	40nØ			75nØ	300m	1.0 Ø	10m	90		6.0pⓅ		N-PE	Si	175	TO46	AØ
4	2N2904	200M§△	40n	10n	80n	30n	600m	10 Ø	.10mØ	20 △		8.0pⓅ		P	Si	200S	TO5	AØ
5	2N2904A	200M§△	40n	10n	80n	30n	600m	10 Ø	.10mØ	40 △		8.0pⓅ		P	Si	200S	TO5	AØ
6	2N2905	200M§△	40n	10n	80n	30n	600m	10 Ø	.10mØ	35 △		8.0pⓅ		P	Si	200S	TO5	AØ
7	2N2905A	200M§△	40n	10n	80n	30n	600m	10 Ø	.10mØ	75 △		8.0pⓅ		P	Si	200S	TO5	AØ
8	2N2906	200M§△	40n	10n	80n	30n	400m	10 Ø	.10mØ	20 △		8.0pⓅ		P	Si	200S	TO18	AØ
9	2N2906A	200M§△	40n	10n	80n	30n	400m	10 Ø	.10mØ	40 △		8.0pⓅ		P	Si	200S	TO18	AØ
10	2N2907	200M§△	40n	10n	80n	30n	400m	10 Ø	.10mØ	35 △		8.0pⓅ		P	Si	200S	TO18	AØ
11	2N2907A	200M§△	40n	10n	80n	30n	400m	10 Ø	.10mØ	75 △		8.0pⓅ		P	Si	200S	TO18	AØ
12	2N2955	200M§△	40n	15n	40n	40n	150m	1.0 Ø	50mØ	43		4.0pⓅ		P	Ge	100J	TO18	A
13	2N3485	200M§	40n	10n	80n	30n	2.0 Ø	10 Ø	100uØ	20 △	3.2	8.0pⓅ		P-EA	Si	200S	TO46	AØ
14	2N3485A	200M§	40n	10n	80n	30n	2.0 Ø	10 Ø	100uØ	40 △	3.2	8.0pⓅ		P-EA	Si	200S	TO46	AØ
15	2N3486	200M§	40n	10n	80n	30n	2.0 Ø	10 Ø	100uØ	35 △	3.2	8.0pⓅ		P-EA	Si	200S	TO46	AØ
16	2N3486A	200M§	40n	10n	80n	30n	2.0 Ø	10 Ø	100uØ	75 △	3.2	8.0pⓅ		P-EA	Si	200S	TO46	AØ
17	2N3671	200M§△	40n	10n	80n	30n	600m	10 Ø	10mØ	75 △		9.0pⓅ		P	Si	200S	TO5	AØ
18	2N3672	200M§△	40n	10n	80n	30n	400m	10 Ø	10mØ	75 △		9.0pⓅ		P	Si	200S	TO18	AØ
19	2N3673	200M§△	40n	10n	80n	30n	350m	10 Ø	10mØ	75 △		9.0pⓅ		P	Si	200S	TO46	AØ
20	2N3838	200M§△	40n	10n	250n	90n	350m	10 Ø	1.0mØ	50 △		8.0pⓅ			Si	200S	L19c	
21	2N4142	200M§	40n	10n	80n	30n	300m	10 Ø	150mØ	120 Ⓟ	3.2	8.0pⓅ		P	Si	125J	R110	A
22	2N4143	200M§	40n	10n	80n	30n	300m	10 Ø	150mØ	300 Ⓟ	3.2	8.0pⓅ		P	Si	125J	R110	A
23	2N4228	200M§△	40n	10n	80n	30n	300m	10 Ø	150mØ	150 Ⓟ	3.2	8.0pⓅ		P	Si	125J	R110	A
24	2N4854	200M§△	40n	20n	280n	70n	600m	10 Ø	1.0m	50 △		8p$Ⓟ		Ø	Si	200S	L19a	
25	2N4855	200M§△	40n	20n	280n	70n	600m	10 Ø	1.0m	25 △		8p$Ⓟ		Ø	Si	200S	L19a	
26	2N4970	200M§△	40n	25n	350n	90n	500mØ	10 Ø	150mØ	100 #△		8.0p$		N	Si	125S	TO106	A
27#	2SC395A	200M§△	40nØ		50n	30n	250m	1.0 Ø	10mØ	200 Ⓟ*	25	6.0pⓅ		N-PE	Si	175J	TO18	AØ
28	A3T2906	200M§△	40n	10n	85n	35n	225m	10 Ø	150mØ	120 Ⓟ#		12pⓅ		P-PE†	Si	150S	u4	A
29	A3T2906A	200M§△	40n	10n	85n	35n	225m	10 Ø	150mØ	120 Ⓟ#		12pⓅ		P-PE†	Si	150S	u44	A
30	A3T2907	200M§△	40n	10n	85n	35n	225m	10 Ø	150mØ	300 Ⓟ#		12pⓅ		P-PE†	Si	150S	u44	A
31	A3T2907A	200M§△	40n	10n	85n	35n	225m	10 Ø	150mØ	300 Ⓟ#		12pⓅ		P-PE†	Si	150S	u44	A
32#	BFV49	200M§△	40nØ			35n	75nØ	150m	1.0 Ø	10mØ	30 △			NPE	Si	200J	u34b	P
33#	BFV86	200M§△	40n	10n	80n	30n	360m	10 Ø	10mØ	75 △		8.0pⓅ		PPE	Si	200S	u26a	B
34#	BFV86A	200M§△	40n	10n	80n	30n	360m	10 Ø	10mØ	100 △		8.0pⓅ		PPE	Si	200S	u26a	B
35#	BFV86B	200M§△	40n	10n	80n	30n	360m	10 Ø	10mØ	35 △		8.0pⓅ		PPE	Si	200S	u26a	B
36#	BFV86C	200M§△	40n	10n	80n	30n	360m	10 Ø	10mØ	40 △		8.0pⓅ		PPE	Si	200S	u26a	B
37#	BSW12	200M§△	40nØ			70nØ	50m*	1.0 Ø	10mØ	150 Ⓟ	40	6.0pⓅ		N-PE	Si	125J	u47	D
38#	BSW23	200M△§	40n	10n	80n	30n	700m	10 Ø	150mØ	40 △#	2.7	8.0pⓅ		PPE	Si	200J	TO50	AØ
39#	BSW24	200M△§	40n	10n	80n	30n	400m	10 Ø	150mØ	40 △#	2.7	8.0pⓅ		PPE	Si	200J	TO18	AØ
40#	BSW26	200M§△	40nØ			85nØ	1.8 Ø	2.0 Ø	100mØ	25 △	3.5	10pⓅ		N-PE	Si	200J	TO18	AØ
41#	BSW27	200M§△	40nØ			85nØ	3.0 Ø	2.0 Ø	100mØ	25 △	3.5	10pⓅ		N-PL	Si	200J	TO18	AØ
42#	BSW29	200M§△	40nØ			85nØ	5.0 Ø	2.0 Ø	100mØ	25 △	3.5	10pⓅ		N-PL	Si	200J	TO5	AØ
43#	BSX36	200M§△	40nØ			100nØ	1.2 Ø	10 Ø	1.0mØ	75		6.0p		P-DPE	Si	200J	TO18	AØ
44#	BSX89	200M△§	40nØ			75nØ	300m	10 Ø	10mØ	20 △#	60	2.5p		NPE	Si	175J	TO18	AØ
45#	BSY61	200M§△	40nØ		25n	75nØ	200m	1.0 Ø	10mØ	10	60			N-D†	Si	125J	TO92	B
46	FT3644	200M§△	40nØ			100nØ	3.0 Ø	10 Ø	150mØ	150 #		8.0p$Ⓟ		P-DPE	Si	125J	R124c	A
47	FT3645	200M§△	40nØ			100nØ	3.0 Ø	10 Ø	150mØ	150 #		8.0p$Ⓟ		P-DPE	Si	125J	R124c	A
48	FT3838	200M§△	40n	10n	250n	90n	350m	10 Ø	150mØ	100 △#		8.0pⓅ		D-PEØ	Si	200J	TO89	
49	MD6001	200M§△	40n	20n	280n	70n	500m	10 Ø	150mØ	40 △#	4.3	8.0p		P-N	Si	200J	L66	
50	MD6001F	200M§△	40n	20n	280n	70n	250m	10 Ø	150mØ	40 #△	4.3	8.0p		P-N	Si	200J	TO89	
51	MD6002	200M§△	40n	20n	280n	70n	500m	10 Ø	150mØ	100 △#	4.3	8.0p		P-N	Si	200J	L66	
52	MD6002F	200M§△	40n	20n	280n	70n	250m	10 Ø	150mØ	100 #△	4.3	8.0p		P-N	Si	200J	TO89	
53#	ME0401	200M§△	40n	10n	80n	30n	600mØ	1.0 Ø	150mØ	40 △#		10pⓅ		P-PE	Si	150	R110	A
54#	ME0402	200M§△	40n	10n	80n	30n	600mØ	1.0 Ø	150mØ	100 △#		10pⓅ		P-PE	Si	150	R110	A
55	MPS706	200M§△	40nØ			75nØ	310m	1.0 Ø	10mØ	20 △#		6.0pⓅ		NAN†	Si	135J	X20d	A
56	MPS706A	200M§△	40nØ			75nØ	310m	1.0 Ø	10mØ	60 Ⓟ#		6.0pⓅ		NAN†	Si	135J	X20d	A
57#	ZT706A	200M§△	40nØ		25n	75nØ	300m	1.0 Ø	10mØ	60 Ⓟ				N-PL	Si	175J	TO18	Ø
58#	ZT1708	200M§△	40nØ		25n	50n	300m	1.0 Ø	10mØ	20 △		6.0pⓅ		N-PE	Si	175	TO46	
59#	ZT2205	200M§△	40nØ		25n	50n	300m	1.0 Ø	10mØ	20 △		6.0pⓅ		N-PE	Si	175	TO18	
60#	ZT2206	200M§△	40nØ		35n	40n	300m	1.0 Ø	10mØ	40 △		6.0pⓅ		N-PE	Si	175	TO46	
61	JAN2N2904	200M§△	45nØ		18n*	175nØ	3.0 Ø	10 Ø	10mØ	35		8.0pⓅ		P	Si	200S	TO5	AØ
62	JAN2N2904A	200M§△	45nØ		18n*	175nØ	3.0 Ø	10 Ø	10mØ	40		8.0pⓅ		P	Si	200S	TO5	AØ
63	JAN2N2905	200M§△	45nØ		18n*	200nØ	3.0 Ø	10 Ø	10mØ	75		8.0pⓅ		P	Si	200S	TO5	AØ
64	JAN2N2905A	200M§△	45nØ		18n*	200nØ	3.0 Ø	10 Ø	10mØ	100		8.0pⓅ		P	Si	200S	TO5	AØ
65	JAN2N2906	200M§△	45nØ		18n*	175nØ	1.8 Ø	10 Ø	10mØ	35		8.0pⓅ		P	Si	200S	TO18	AØ
66	JAN2N2906A	200M§△	45nØ		18n*	175nØ	1.8 Ø	10 Ø	10mØ	40	2.6	8.0pⓅ		P	Si	200S	TO18	AØ
67	JAN2N2907	200M§△	45nØ		18n*	200nØ	1.8 Ø	10 Ø	10mØ	75	2.6	8.0pⓅ		P	Si	200S	TO18	AØ
68	JAN2N2907A	200M§△	45nØ		18n*	200nØ	1.8 Ø	10 Ø	10mØ	100	2.6	8.0pⓅ		P	Si	200S	TO18	AØ
69	JAN2N3485A	200M§△	45nØ			175nØ	2.0 Ø	10 Ø	100uØ	40 △				P	Si	200S	TO46	AØ
70	JAN2N3486A	200M§△	45nØ			200nØ	2.0 Ø	10 Ø	100uØ	75 △				P	Si	200S	TO46	AØ
71▼	MD1T2907	200M§	45nØ		80n	100nØ	400m	10 Ø	150mØ	100 #△		8.0pⓅ		P	Si	150A	TO122	P
72#	PL4031	200M§△	45nØ		80n	100nØ	360m	10 Ø	.10mØ	20 △		8.0pⓅ		PPE	Si	175S	u51	
73#	PL4032	200M§△	45nØ		80n	100nØ	360m	10 Ø	100uØ	40 △		8.0pⓅ		P-PE	Si	175S	u51	
74#	PL4033	200M§△	45nØ		80n	100nØ	360m	10 Ø	.10mØ	35 △		8.0pⓅ		PPE	Si	175S	u51	
75#	PL4034	200M§△	45nØ		80n	100nØ	360m	10 Ø	.10mØ	75 △		8.0pⓅ		PPE	Si	175S	u51	
76	2N3830	200M§△	50n	10n	40n	30n	1.0	1.0 Ø	500mØ	30 #△		12pⓅ		N	Si	200S	TO5	AØ
77	2N3831	200M§△	50n	10n	40n	30n	1.0	1.0 Ø	500mØ	35 #△		12pⓅ		N	Si	200S	TO5	AØ
78	40458	200M§	50n	25n	500n	75n	500m	10 Ø	10mØ	150	1.0	20p$Ⓟ	20n†	N-DPE	Si	175J	R123	
79	40459	200M§	50n	25n	500n	75n	1.0	10 Ø	10mØ	150	1.0	20p$Ⓟ	20n†	N-DPE	Si	175J	R119	
80#	BFY64	200M§△	50nØ			120nØ	3.0 Ø	10 Ø	1.0mØ	200		10pⓅ		P-DPE	Si	200J	TO5	AØ
81#	BSW28	200M§△	50nØ			85nØ	3.0 Ø	2.0 Ø	100mØ	25 △	3.5	10pⓅ		N-PL	Si	200J	TO5	AØ
82#	BSX53	200M§△	50n	75n	100n	50n	150mØ	1.0 Ø	50mØ	50 △		5.0p		N-PE	Si	175	TO18	
83#	BSX54	200M§△	50n	75n	100n	50n	150mØ	1.0 Ø	50mØ	50 △		5.0p		N-PE	Si	175	TO18	
84#	BSX79	200M§△	50n	75n	100n	50n	360mØ	1.0 Ø	50mØ	50 △		5.0p		N-PE	Si	175	TO18	
85	2N3973	200M§△	60nØ			110nØ	360m	1.0 Ø	10mØ	35 △	2.0			N	Si	150S	R67	B
86	2N3974	200M§△	60nØ			110nØ	360m	1.0 Ø	10mØ	55 △	2.0			N	Si	150S	R67	B
87	2N3975	200M§△	60nØ			200nØ	360m	1.0 Ø	10mØ	35 △	2.0			N	Si	150S	R67	B
88	2N3976	200M§△	60nØ			250nØ	360m	1.0 Ø	10mØ	55 △	2.0			N	Si	150S	R67	B
89	2N4971	200M§△	60n	20n	150n	50n	500mØ	10 Ø	150mØ	40 #△		8.0p$		P	Si	125S	TO106	A
90#	BC212K	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	50 †△		10pⓅ		P-PEØ	Si	125A	X64a	A
91#	BC212KA	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	300 †Ⓟ		10pⓅ		P-PEØ	Si	125A	X64a	A
92#	BC212KB	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	400 †Ⓟ		10pⓅ		P-PEØ	Si	125A	X64a	A
93#	BC212L	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	50 †△		10pⓅ		P-PEØ	Si	125A	X20	B
94#	BC212LA	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	300 †Ⓟ		10pⓅ		P-PEØ	Si	125A	X20	B
95#	BC212LB	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	400 †Ⓟ		10pⓅ		P-PEØ	Si	125A	X20	B
96#	BC213K	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	70 †△		10pⓅ		P-PEØ	Si	125A	X64a	A
97#	BC213KA	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	300 †Ⓟ		10pⓅ		P-PEØ	Si	125A	X64a	A
98#	BC213KB	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	400 †Ⓟ		10pⓅ		P-PEØ	Si	125A	X64a	A
99#	BC213KC	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	600 †Ⓟ		10pⓅ		P-PEØ	Si	125A	X64a	A
100#	BC213L	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	70 †△		10pⓅ		P-PEØ	Si	125A	X20	B
101#	BC213LA	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	300 †Ⓟ		10pⓅ		P-PEØ	Si	125A	X20	B
102#	BC213LB	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	400 †Ⓟ		10pⓅ		P-PEØ	Si	125A	X20	B
103#	BC213LC	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	600 †Ⓟ		10pⓅ		P-PEØ	Si	125A	X20	B
104#	BC214K	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	125 †△		10pⓅ		P-PEØ	Si	125A	X64a	A
105#	BC214KB	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	400 †Ⓟ		10pⓅ		P-PEØ	Si	125A	X64a	A
106#	BC214KC	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	600 †Ⓟ		10pⓅ		P-PEØ	Si	125A	X64a	A
107#	BC214L	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	125 †△		10pⓅ		P-PEØ	Si	125A	X20	B
108#	BC214LB	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	400 †Ⓟ		10pⓅ		P-PEØ	Si	125A	X20	B
109#	BC214LC	200M§△	60nØ†			30nØ†	300m	5.0 Ø	2.0mØ	600 †Ⓟ		10pⓅ		P-PEØ	Si	125A	X20	B
110	EN706	200M§△	60n$				200m	1.0 Ø	10mØ	20 #△	90	6.0pⓅ		N	Si	125J	TO106	A

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	[3] TYPE No.	[1] fab (Hz)	[2] MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	MAT	MAX. TEMP (°C)	DWG. No.	LEAD CODE
1	2N2410	200M§Δ	65nØ		40n	30n	2.5 Ø	10 Ø	150mØ	30 †#Δ		11pⓅ		N	Si	200J	TO5	AØ
2	2N4972	200M§Δ	65n	25n	175n	60n	500mØ	10 Ø	150mØ	100 #Δ		8.0p$		P	Si	125S	TO106	A
3#	BFV88	200M§Δ	65nØ		40n	30n	360m	10 Ø	150mØ	75 #		11pⓅ		NPE	Si	200J	u26a	B
4	2N4452	200M§Δ	70n	25n	140n	70n	3 Ø	10 Ø	.10mØ	120 Δ		8p$Ⓟ		P	Si	200J	TO46	A
5	S18000	200M§Δ	70nØ			150nØ	3.0 Ø	1.0 Ø	100mØ	40 #Δ	3.2	8.0pⓅ		P-PE	Si	200S	TO5	
6	2N2401	200M§Δ	75nØ	120n$		110n	150m	.50 Ø	50mØ	40 Δ	20	4.0pⓅ		P	Ge	100S	TO18	A
7	2N3133	200M§Δ	75nØ		150nØ		600m	10 Ø	150mØ	120 Ⓟ		10pⓅ		P	Si	200S	TO5	AØ
8	2N3134	200M§Δ	75nØ		150nØ		600m	10 Ø	150mØ	300 Ⓟ		10pⓅ		P	Si	200S	TO5	AØ
9	2N3135	200M§Δ	75nØ		150nØ		400m	10 Ø	150mØ	120 Ⓟ		10pⓅ		P	Si	200S	TO18	AØ
10	2N3136	200M§Δ	75nØ		150nØ		400m	10 Ø	150mØ	300 Ⓟ		10pⓅ		P	Si	200S	TO18	AØ
11	2N2478	200M§Δ	80n		130n	55n	600m	1.5 Ø	150mØ	30 Δ		12p		N-PE	Si	175A	TO5	AØ
12	2SA530H	200M§Δ	90nØ†		150n†	160nØ†	200m	1.0 Ø	10mØ	35 †Δ	12	8.0pⓅ		P-PE	Si	175J	TO18	A
13#	BSW10	200M§Δ	100nØ			350nØ	2.2 Ø*	10 Ø	1.0mØ	25 Δ	2.6	10pⓅ		N-PE	Si	175J	TO5	AØ
14	ST30100	200M§Δ	100nØ			500nØ	5.0 Ø	10 Ø	50mØ	100 Δ	15	10pⓅ		P-PEØ	Si	200A	TO5	AØ
15#	2SC307	200M§	150n		300n	150n	800m	10 Ø	150mØ	85 #	4.7	10p		N-PL	Si	200J	TO5	AØ
16#	BSW88	200M§Δ	150nØ			800nØ	230m*	1.0 Ø	10mØ	750 Ⓟ*	20	6.0pⓅ		N-PE	Si	125J	X73	C
17#	BSW89	200M§Δ	150nØ			800nØ	230m*	1.0 Ø	10mØ	750 Ⓟ*	20	6.0pⓅ		N-PE	Si	125J	X73	A
18#	BSX81	200M§Δ	150nØ			800nØ	230m*	1.0 Ø	10mØ	750 Ⓟ*	20	6.0pⓅ		NPE	Si	125J	MM11	A
19#	BSX66	200M§Δ	200nØ	50n†	100n†	400nØ	260m*	0.0	100mØ	25 Δ		5p$Ⓟ		NPE	Si	175J	TO18	A
20#	BSX67	200M§Δ	200nØ	50n†	100n†	400nØ	260m*	0.0	100mØ	35 Δ		5p$Ⓟ		NPE	Si	175J	TO18	A
21	2N3494	200M§Δ	300nØ		1.0uØ		600m	10 Ø	50mØ	40 #Δ	30	7.0pⓅ		P	Si	200S	TO5	AØ
22	2N3496	200M§Δ	300nØ		1.0uØ		400m	10 Ø	50mØ	40 #Δ	30	7.0pⓅ		P	Si	200S	TO18	AØ
23	2N3635	200M§Δ	400nØ			600nØ	5.0 Ø	10 Ø	10mØ	100 Δ	40	10pⓅ		P	Si	200S	TO5	AØ
24	2N3637	200M§Δ	400nØ			600nØ	5.0 Ø	10 Ø	10mØ	100 Δ	40	10pⓅ		P	Si	200S	TO5	AØ
25#	BSY40	210M§	20n	10n	90n	20n	1.2 Ø	500mØ	10mØ	60 Ⓟ	20			P-PE	Si	175J	TO18	AØ
26	2N1204A	220M§Δ	35n				200m	.50 Ø	200m	25 Δ		8.0pⓅ		P	Ge	100	TO39	AØ
27#	BSY41	230M§	20n	10n	90n	20n	1.2 Ø	500mØ	10mØ	200 Ⓟ	20			P-PE	Si	175J	TO18	AØ
28	2N1410A	230M	40n	15n	170n	30n	800m	10 Ø	150m	60 #	2.0	12p		N-PL	Si	175J	TO5	A
29	JAN2N3506	240M§Ⓟ	30n	15n	55n	35n	5.0 Ø	5.0 Ø	3.0 Ø	200 #Ⓟ		40pⓅ		N	Si	200A	TO5	AØ
30	JAN2N3507	240M§Ⓟ	30n	15n	55n	35n	5.0 Ø	5.0 Ø	3.0 Ø	150 #Ⓟ		40pⓅ		N	Si	200A	TO5	AØ
31#	2SC317H	240M§	45n†	130n†	350n†	65n†	350m	6.0 Ø	10mØ	80 *		10pⓅ		N-PM S	i	175J	TO1	A
32	JAN2N3867	240M§Ⓟ	65n	35n	325n	75n	10 Ø	5.0 Ø	3.0 Ø	20 Δ	500m	120pⓅ		P	Si	200S	TO5	AØ
33	JAN2N3868	240M§Ⓟ	65n	35n	325n	75n	10 Ø	5.0 Ø	3.0 Ø	20 Δ	500m	120pⓅ		P	Si	200S	TO5	AØ
34#	BFY17	245M§	13n	9.0n	600n	300n	600m	9.0 Ø	10mØ	35 Δ		5.5pⓅ		N-PL	Si	175J	TO5	
35#	BFY18	245M§	13n	9.0n	600n	300n	300m	9.0 Ø	10mØ	35 Δ		5.5pⓅ		N-PL	Si	175J	TO18	
36#	2SC907H	250M§					200m	1.0 Ø	10mØ	60 Δ		2.0p		N	Si	175J	TO1	
37#	BSX76	250M§			50n		300m	400mØ	1.0mØ	64 Ⓟ				PL	Si	175J	TO18	AØ
38	MPS2713	250M§	6.0n	7.0n	12n	9.0n	310m	4.5 Ø	2.0mØ	30 Δ		2.5p		N-EA	Si	135J	TO92	A
39	MPS2714	250M§	6.0n	7.0n	12n	9.0n	310m	4.5 Ø	2.0mØ	75 Δ		2.5p		N-EA	Si	135J	TO92	A
40	2N2256	250M§Δ	7.0nØ			7.0nØ	300m	1.0 Ø	10m	30		5.0pⓅ	50n†	N-ME	Si	175J	TO1	A
41	2N2257	250M§Δ	7.0nØ			7.0nØ	300m	1.0 Ø	10m	50		5.0pⓅ	50n†	N-ME	Si	175J	TO1	A
42	2N2258	250M§Δ	8.0nØ			7.0nØ	150m	1.0 Ø	10m	30		8.0pⓅ	75n†	P-ME	Ge	100J	TO1	A
43	2N2259	250M§Δ	8.0nØ			7.0nØ	150m	1.0 Ø	10m	50		8.0pⓅ	75n†	P-ME	Ge	100J	TO1	A
44	2N976	250M§Δ	10n				100m	.50 Ø	40mØ	25 Δ	8.5	.30pⓅ		P	Ge	100S	TO18	A
45	2N5134	250M§Δ	12n	14n	13n	13n	200m	1.0 Ø	10mØ	20 #Δ		4p$Ⓟ		N	Si	125J	TO106	A
46	MMT3903	250M§Δ	13n†	24n†	125n†	11n†	225m	1.0 Ø	1.0mØ	35 Δ	20	4.0pⓅ		NØ	Si	135J	u23c	F
47	2N3248	250M§Δ	15n	5.0n	60n	20n	1.2 Ø	1.0 Ø	10mØ	50 #Δ		8.0pⓅ		P	Si	200J	TO18	AØ
48#	BSX77	250M§	15n	15n	50n	75n	300m	500mØ	1.0mØ	64 Ⓟ	25			PL	Si	175J	TO18	AØ
49	TIS82	250M§Δ	15n	10n	15n	15n	1.0	5.0 Ø	1.0 Ø	25		12p$Ⓟ		N	Si	175J	TO5	
50	A3T2221	250M§Δ	16n†	7.0n†	130n†	20n†	225m	10 Ø	150mØ	120 #Ⓟ		8.0pⓅ		N-PE	Si	150S	u44	A
51	A3T2222	250M§Δ	16n†	7.0n†	160n†	20n†	225m	10 Ø	150mØ	300 #Ⓟ		8.0pⓅ		N-PE	Si	150S	u44	A
52	MMT3906	250M§Δ	18n†	25n†	140n†	15n†	225m	1.0 Ø	1.0mØ	80 Δ	25	4.5pⓅ		P	Si	135J	u23c	
53	2N4401	250M§Δ	20n	15n	225n	30n	310m	1.0 Ø	150mØ	100 #Δ		7p$Ⓟ		N	Si	135J	TO92	A
54	2N5027	250M§Δ	20n	15n	35n	25n	320m	10 Ø	150mØ	150 #Ⓟ		8p$Ⓟ		N	Si	120	TO98	B
55	2N5224	250M§Δ	20n	25n	35n	25n	310m	1.0 Ø	100mØ	15 Δ	.35	4p$Ⓟ		N	Si	135S	TO92	A
56	2N3512	250M§Δ	24n	6.0n	30n	15n	4.0 Ø	1.0 Ø	500mØ	10 #Δ	2.6	10pⓅ		N	Si	200S	TO5	AØ
57	2N2218A	250M§Δ	25n	10n	225n	60n	3.0 Ø	10 Ø	1.0mØ	25 Δ		8.0pⓅ	.15n	N	Si	175J	TO5	AØ
58	2N2221A	250M§Δ	25n	10n	225n	60n	1.8 Ø	10 Ø	1.0mØ	25 Δ		8.0pⓅ	.15n	N	Si	175J	TO18	AØ
59	2N2476	250M§Δ	25nØ		25n	45nØ	600m	.40 Ø	150mØ	20 Δ	1.5	10pⓅ		N	Si	200J	TO5	AØ
60	2N2477	250M§Δ	25nØ		25n	45nØ	600m	.40 Ø	150mØ	40 Δ	1.3	10pⓅ		N	Si	200J	TO5	AØ
61	2N2847	250M§Δ	25nØ			40nØ	360m	10 Ø	150mØ	140 †#Δ		8.0pⓅ		N	Si	200J	TO18	AØ
62	2N2848	250M§Δ	25nØ			40nØ	800m	10 Ø	150mØ	140 †#Δ		8.0pⓅ		N	Si	200J	TO5	AØ
63	2N3678	250M§Δ	25n	15n	190n	60n	800m	10 Ø	150mØ	40 #Δ		8.0pⓅ		N	Si	200J	TO5	AØ
64	2N5581	250M§Δ	25n	10n	225n	60n	2.0 Ø	10 Ø	10mØ	35 Δ		8.0p$Ⓟ		N	Si	200S	TO46	AØ
65	A3T2221A	250M§Δ	25n	10n	225n	60n	225m	10 Ø	150mØ	120 #Ⓟ		8.0pⓅ		N-PE†	Si	150S	u44	A
66#	BFV85	250M§Δ	25nØ†			200nØ†	360m	10 Ø	10mØ	75 Δ		8.0pⓅ		NPE	Si	175J	u26a	B
67#	BFV85A	250M§Δ	25n	10n	225n	60n	360m	10 Ø	10mØ	75 Δ		8.0pⓅ		N-PEØ	Si	175J	u26a	B
68#	BFV85B	250M§Δ	25nØ†			175nØ†	360m	10 Ø	10mØ	35 Δ		8.0pⓅ		NPE	Si	175J	u26a	B
69#	BFV93N	250M§Δ	25nØ†			200nØ†	400m	10 Ø	150mØ	300 *Ⓟ		10pⓅ		N-PE	Si	175	L56j	
70#	BFV94	250M§Δ	25nØ†			200nØ†	400m	10 Ø	150mØ	300 *Ⓟ		10pⓅ		N-PE	Si	175	L56f	
71#	BFV94N	250M§Δ	25nØ†			200nØ†	400m	10 Ø	150mØ	300 *Ⓟ		10pⓅ		N-PE	Si	175	L56g	
72#	BFV95	250M§Δ	25nØ†			200nØ†	400m	10 Ø	150mØ	300 *Ⓟ		10pⓅ		N-PE	Si	175	L56d	
73#	BFV95N	250M§Δ	25nØ†			200nØ†	400m	10 Ø	150mØ	300 *Ⓟ		10pⓅ		N-PE	Si	175	L56e	
74#	BSX72	250M§Δ	25nØ†			150nØ†	575mØ	1.0 Ø	150mØ	20 Δ		8.0p		N-PE	Si	175	TO5	
75#	BSX75	250M§Δ	25nØ†			150nØ†	500mØ	10 Ø	500mØ	20 Δ		8.0p		N-PE	Si	175	TO18	
76#	ME6101	250M§Δ	25n	10n	225n	60n	600mØ	10 Ø	150mØ	70 Δ#		8.0pⓅ		N-PE	Si	150	R110	A
77#	ME6102	250M§Δ	25n	10n	225n	60n	600mØ	10 Ø	150mØ	100 Δ#		8.0pⓅ		N-PE	Si	150	R110	A
78#	PL4051	250M§Δ	25nØ			150nØ	220m	10 Ø	10mØ	17 Δ		8.0pⓅ		NPE	Si	175S	u51	
79#	PL4052	250M§Δ	25n	10n	225n	60n	220m	10 Ø	10mØ	35 Δ		8.0pⓅ		N-PEØ	Si	175S	u51	
80#	PL4053	250M§Δ	25nØ			175nØ	220m	10 Ø	10mØ	35 Δ		8.0pⓅ		NPE	Si	175S	u51	
81#	PL4055	250M§Δ	25nØ			200nØ	220m	10 Ø	10mØ	75 Δ		8.0pⓅ		NPE	Si	175S	u51	
82#	ZT2476	250M§Δ	25nØ		25n	45nØ	600m	400m	150m	20 Δ	1.5	10p		N-PE	Si	200J	TO5	
83#	ZT2477	250M§Δ	25nØ		25n	45nØ	600m	400m	150m	40 Δ	1.3	10p		N-PE	Si	200J	TO5	
84	2N2956	250M§Δ	30n	15n	55n	35n	150m	1.0 Ø	50mØ	76		4.0pⓅ		P	Ge	100J	TO18	A
85	2N3545	250M§Δ	30n	30n	40n	50n	360m	1.0 Ø	10mØ	120 Ⓟ	.20	8.0pⓅ		P	Si	200J	TO18	AØ
86	2N5028	250M§Δ	30n	15n	45n	35n	320m	10 Ø	150mØ	300 #Ⓟ		8p$Ⓟ		N	Si	120	TO98	B
87#	BFW68	250M§Δ	30nØ†			240nØ†	1.2 Ø	10 Ø	1.0mØ	120 #		4.0pⓅ		N-DPE	Si	200J	TO18	AØ
88	JAN2N2218A	250M§Δ	35nØ		18n*	300nØ	3.0 Ø	10 Ø	150mØ	40 #Δ	2.0	8.0pⓅ		N	Si	200S	TO5	AØ
89	JAN2N2219A	250M§Δ	35nØ		18n*	300nØ	3.0 Ø	10 Ø	150mØ	100 #Δ	2.0	8.0pⓅ		N	Si	200S	TO5	AØ
90	JAN2N2221A	250M§Δ	35nØ		18n*	300nØ	1.8 Ø	10 Ø	150mØ	120 #Ⓟ	2.0	8.0pⓅ		N	Si	200S	TO18	AØ
91	JAN2N2222A	250M§Δ	35nØ		18n*	300nØ	1.8 Ø	10 Ø	150mØ	300 #Ⓟ	2.0	8.0pⓅ		N	Si	200S	TO18	AØ
92	2N3250	250M§Δ	35n	35n	175n	50n	360m	1.0 Ø	10mØ	150 #Ⓟ		6.0pⓅ	.25n	P	Si	200J	TO18	AØ
93	2N3250A	250M§Δ	35n	35n	175n	50n	360m	1.0 Ø	10mØ	150 #Ⓟ	25	6.0pⓅ		P-EA	Si	200J	TO18	Ø
94	2N3251A	250M§Δ	35n	35n	200n	50n	360m	1.0 Ø	10mØ	300 #Ⓟ	25	6.0pⓅ		P-EA	Si	200J	TO18	AØ
95	2N3903	250M§Δ	35n	35n	175n	50n	310m	1.0 Ø	.10mØ	20 #Δ		4.0pⓅ		NØ	Si	135J	TO92	A
96	2N3906	250M§Δ	35n	35n	225n	75n	310m	1.0 Ø	.10mØ	60 #Δ		4.5pⓅ		PØ	Si	135J	TO92	A
97	2N4046	250M§Δ	35n	10n	50n	25n	3.5 Ø	1.0 Ø	300mØ	30 #Δ		12pⓅ		N	Si	200J	TO5	AØ
98	2N4047	250M§Δ	35n	10n	70n	30n	3.5 Ø	1.0 Ø	300mØ	30 #Δ		10pⓅ		N	Si	200J	TO5	AØ
99	CS3903	250M	35n	35n	175n	50n	310m	1.0	10m	50	20	4.0p		N	Si	135J	R97a	
100	CS3906	250M§Δ	35n	35n	225n	75n	1.0 Ø	1.0 Ø	10mØ	300 Ⓟ	25	4.5pⓅ		P-DPLØ	Si	150J	R97a	A
101	MM1756	250M§Δ	35nØ			285nØ		10 Ø	150mØ	40 Δ		8.0pⓅ		N	Si		TO46	
102▼	MM3903	250M§Δ	35n	35n	175n	50n	360m	1.0 Ø	1.0mØ	35 Δ#		5.0pⓅ		N-ANØ	Si	200J	TO52	A
103	MM3906	250M§Δ	35n	35n	225n	75n	360m	1.0 Ø	100uØ	60 Δ#		5.0pⓅ		PANØ	Si	200J	TO52	A
104	S17900	250M§Δ	35nØ			65nØ	3.0 Ø	1.0 Ø	100mØ	90 #Ⓟ	1.0	10pⓅ		N-PE	Si	200S	TO5	AØ
105	2N5413	250M§Δ	37n	5.0n	50n	35n	5.0 Ø	1.0 Ø	50mØ	30 #Δ		16p$		N	Si	200S	TO39	AØ
106	2N5414	250M§Δ	37n	5.0n	60n	35n	5.0 Ø	1.0 Ø	50mØ	30 #Δ		16p$		N	Si	200S	TO39	AØ
107	JAN2N2218	250M§Δ	40nØ		18n*	250nØ	3.0 Ø	10 Ø	150mØ	40 #Δ	2.6	8.0pⓅ		N	Si	200S	TO5	AØ
108	JAN2N2219	250M§Δ	40nØ		18n*	250nØ	3.0 Ø	10 Ø	150mØ	100 #Δ	2.6	8.0pⓅ		N	Si	200S	TO5	AØ
109	JAN2N2221	250M§Δ	40nØ		18n*	250nØ	1.8 Ø	10 Ø	150mØ	120 #Ⓟ	2.6	8.0pⓅ		N	Si	200S	TO18	AØ
110	JAN2N2222	250M§Δ	40nØ		18n*	250nØ	1.8 Ø	10 Ø	150mØ	300 #Ⓟ	2.6	8.0pⓅ		N	Si	200S	TO18	AØ

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	MA T	MAX. TEMP (°C)	DWG. No.	LEAD CODE
1	2N2537	250M§Δ	40nØ		20n	40nØ	3.0 Ø	10 Ø	10mØ	30 Δ		8.0pⓅ		N	Si	200J	TO5	AØ
2	2N2538	250M§Δ	40nØ		20n	40nØ	3.0 Ø	10 Ø	10mØ	50 Δ		8.0pⓅ		N	Si	200J	TO5	AØ
3	2N2539	250M§Δ	40nØ		20n	40nØ	1.8 Ø	10 Ø	10mØ	30 Δ		8.0pⓅ		N	Si	200J	TO18	AØ
4	2N2540	250M§Δ	40nØ		20n	40nØ	1.8 Ø	10 Ø	10mØ	50 Δ		8.0pⓅ		N	Si	200J	TO18	AØ
5	2N2845	250M§Δ	40nØ			40nØ	360m	10 Ø	150mØ	120 †#Δ		8.0pⓅ		N	Si	200J	TO18	AØ
6	2N2846	250M§Δ	40nØ			40nØ	800m	10 Ø	150mØ	120 †#Δ		8.0pⓅ		N	Si	200J	TO5	AØ
7	2N3015	250M§Δ	40nØ		60nØ		3.0 Ø	10 Ø	150mØ	120 #Ⓟ		8.0pⓅ		N	Si	200J	TO5	AØ
8	2N3735	250M§Δ	40n	8.0n	30n	30n	1.0	1.0 Ø	500mØ	35 Δ	20	9.0pⓅ		N	Si	200S	TO5	AØ
9	2N3737	250M§Δ	40n	8.0n	30n	30n	500m	1.0 Ø	150mØ	40 Δ	20	9.0pⓅ		N	Si	200S	TO46	AØ
10	2N4140	250M§Δ	40n	10n	250n	60n	300m	10 Ø	150mØ	120 Ⓟ	3.2	8.0pⓅ		N	Si	125J	R110	A
11	2N4141	250M§Δ	40n	10n	250n	60n	300m	10 Ø	150mØ	300 Ⓟ	3.2	8.0pⓅ		N	Si	125J	R110	A
12	2N4227	250M§Δ	40n	10n	250n	60n	300m	10 Ø	150mØ	150 Ⓟ	3.2	8.0pⓅ		N	Si	125J	R110	A
13	2N4951	250M§Δ	40nØ		350nØ		360m	10 Ø	10mØ	40 #Δ		8p$Ⓟ		N	Si	150S	TO98	B
14	2N4952	250M§Δ	40nØ		350nØ		360m	10 Ø	10mØ	75 Δ		8p$Ⓟ		N	Si	150S	TO98	B
15	2N4953	250M§Δ	40nØ		400nØ		360m	10 Ø	10mØ	150 Δ		8p$Ⓟ		N	Si	150S	TO98	B
16	2N4954	250M§Δ	40nØ		400nØ		360m	10 Ø	10mØ	40 Δ		8p$Ⓟ		N	Si	150S	TO98	B
17	2N5368	250M§Δ	40nØ			350nØ	360m	10 Ø	10mØ	40 #Δ		8p$Ⓟ		N	Si	150J	X93	A
18	2N5369	250M§Δ	40nØ			350nØ	360m	10 Ø	10mØ	75 #Δ		8p$Ⓟ		N	Si	150J	X93	A
19	2N5370	250M§Δ	40nØ			400nØ	360m	10 Ø	10mØ	150 #Δ		8p$Ⓟ		N	Si	150J	X93	A
20	2N5371	250M§Δ	40nØ			400nØ	360m	10 Ø	10mØ	40 #Δ		8p$Ⓟ		N	Si	150J	X93	A
21#	2SC88	250M§	40n		300n	130n	600m	10 Ø	10mØ	50		3.0p	70n†	N-ME	Si	175J	TO5	
22#	2SC619	250M§	40nØ		150n	250nØ	250m	6.0 Ø	10mØ	110 #	10	7.0p	100n	N-PE†	Si	125J	TO92	D
23#	2SC714	250M§	40nØ		150n	250nØ	250m	6.0 Ø	10mØ	60 #	10	7.0p	100n	N-PE†	Si	125J	TO92	D
24#	BFV54	250M§Δ	40nØ			60nØ	150m	.70 Ø	300mØ	10 Δ		8.0pⓅ		NPE	Si	200J	u34b	P
25#	BFV88A	250M§Δ	40nØ		20n	40nØ	360m	10 Ø	1.0mØ	20 Δ		8.0pⓅ		NPE	Si	200J	u26a	B
26#	BFV88B	250M§Δ	40nØ		20n	40nØ	360m	10 Ø	1.0mØ	35 Δ		8.0pⓅ		NPE	Si	200J	u26a	B
27#	BFV88C	250M§Δ	40nØ			60nØ	360m	.70 Ø	300mØ	10 #Δ		8.0pⓅ		NPE	Si	200J	u26a	B
28#	BSX30	250M§Δ	40nØ			60nØ	3.0 Ø	700mØ	300mØ	50 #		8.0pⓅ		N-DPE	Si	200J	TO5	Ø
29#	V435	250M§Δ	40nØ			100nØ	300m	10 Ø	10mØ	40 Δ		12pⓅ		P	Si	125J	R97	
30	2N2787	250M§Δ	50nØ		50nØ		3.0 Ø	5.0 Ø	1.0mØ	15 Δ		8.0pⓅ		N	Si	175J	TO5	AØ
31	2N2788	250M§Δ	50nØ		60nØ		3.0 Ø	5.0 Ø	1.0mØ	30 Δ		8.0pⓅ		N	Si	175J	TO5	AØ
32	2N2789	250M§Δ	50nØ		70nØ		3.0 Ø	5.0 Ø	1.0mØ	80 Δ		8.0pⓅ		N	Si	175J	TO5	AØ
33	2N2790	250M§Δ	50nØ		50nØ		1.8 Ø	5.0 Ø	1.0mØ	15 Δ		8.0pⓅ		N	Si	175J	TO18	AØ
34	2N2791	250M§Δ	50nØ		60nØ		1.8 Ø	5.0 Ø	1.0mØ	30 Δ		8.0pⓅ		N	Si	175J	TO18	AØ
35	2N2792	250M§Δ	50nØ		70nØ		1.8 Ø	5.0 Ø	1.0mØ	80 Δ		8.0pⓅ		N	Si	175J	TO18	AØ
36#	2SA544	250M§	50nØ		200n	250nØ	750m	10 Ø	10mØ	40 #Δ	13	7.0pⓅ		P-PE	Si	175J	TO39	AØ
37#	2SC97	250M§	50nØ		100n	150nØ	800m	10 Ø	150mØ	60 #		20pⓅ		N-PE	Si	175J	TO5	
38#	BSW41	250M§Δ	50nØ			100nØ	1.0 Ø	10 Ø	500mØ	20 Δ		8.0pⓅ		N-PE	Si	200J	TO18	AØ
39	2N4450	250M§Δ	55n	30n	140n	100n	3.0 Ø	10 Ø	.10mØ	35 Δ	1.5	8p$Ⓟ		N	Si	200J	TO46	AØ
40	2N963	250M§Δ	60nØ			120nØ	150m	1.0 Ø	100mØ	20 Δ	20	5.0pⓅ		P	Ge	100S	TO18	AØ
41	2N967	250M§Δ	60nØ			120nØ	150m	1.0 Ø	100mØ	40 Δ	20	5.0pⓅ		P	Ge	100S	TO18	AØ
42	2N2048	250M§	60n	100n$		60n	150m	500mØ	10m	125	14	1.5p		P-MD	Ge	100S	TO9	A
43	2N3299	250M§Δ	60nØ			150nØ	3.0 Ø	10 Ø	150mØ	120 #Ⓟ	1.2	8.0pⓅ		N	Si	200J	TO5	AØ
44	2N3300	250M§Δ	60nØ			150nØ	3.0 Ø	10 Ø	150mØ	300 #Ⓟ	1.2	8.0pⓅ		N	Si	200J	TO5	AØ
45	2N3301	250M§Δ	60nØ			150nØ	1.8 Ø	10 Ø	150mØ	120 #	1.2	8.0pⓅ		N	Si	200J	TO18	AØ
46	2N3302	250M§Δ	60nØ			150nØ	360m	10 Ø	150mØ	300 #	1.2	8.0pⓅ		N	Si	200J	TO18	AØ
47	2N4436	250M§Δ	60nØ			150nØ	500mØ	10 Ø	150mØ	120 #Ⓟ		8.0pⓅ		N†	Si	125J	R124	A
48	2N4437	250M§Δ	60nØ			150nØ	500mØ	10 Ø	150mØ	300 #Ⓟ		8.0pⓅ		N†	Si	125J	R124	A
49	FT3641	250M§Δ	60nØ			150nØ	3.0 Ø	10 Ø	500mØ	62 #		8.0pⓅ		N-DPE	Si	125J	R124c	A
50	FT3642	250M§Δ	60nØ			150nØ	3.0 Ø	10 Ø	500mØ	62 #		8.0pⓅ		N-DPE	Si	125J	R124c	A
51	FT3643	250M§Δ	60nØ			150nØ	3.0 Ø	10 Ø	500mØ	125 #		8.0pⓅ		N-DPE	Si	125J	R124c	A
52#	C111E	250M§Δ	65nØ	30n$		80nØ	1.0 Ø	1.0 Ø	50mØ	50 #		6.0p		NPE	Si	175S	TO18	AØ
53#	2SC87	250M§	70n		300n	50n	600m	10 Ø	10mØ	50		4.0p	90n†	N-ME	Si	175J	TO5	
54#	BFY72	250M§Δ	70nØ			170nØ	3.0 Ø	10 Ø	1.0mØ	85		8.0pⓅ		N-DPE	Si	200J	TO5	Ø
55	GI3638	250M§	70n	20n	140n	70n	300m	1.0 Ø	.50mØ	30		20pⓅ		P-E	Si	125	R97d	
56	GI3638A	250M§	70n	20n	140n	70n	300m	1.0 Ø	.50mØ	100		10pⓅ		P-E	Si	125	R97d	
57	2N2402	250M§Δ	75nØ	100n$		100n	150m	.50 Ø	50mØ	50 Δ	20	4.0pⓅ		P	Ge	100S	TO18	A
58	2N2958	250M§Δ	75n	20n	300n	200n	3.0 Ø	10 Ø	150mØ	120 Ⓟ		8.0pⓅ		N	Si	200S	TO5	AØ
59	2N2959	250M§Δ	75n	20n	300n	200n	3.0 Ø	10 Ø	150mØ	300 Ⓟ		8.0pⓅ		N	Si	200S	TO5	AØ
60	2N2960	250M§Δ	75n	20n	300n	200n	3.0 Ø	10 Ø	1.0mØ	50 Δ		8.0pⓅ		N	Si	200S	TO5	AØ
61	2N2961	250M§Δ	75n	20n	300n	200n	3.0 Ø	10 Ø	500mØ	30 #Δ		8.0pⓅ		N	Si	200S	TO5	AØ
62	2N3115	250M§Δ	75n	20n	300n	200n	400m	10 Ø	150mØ	40 Δ		8.0pⓅ		N	Si	175J	TO18	A
63	2N3116	250M§Δ	75n	20n	300n	200n	400m	10 Ø	150mØ	100 Δ		8.0pⓅ		N	Si	175J	TO18	A
64	2N1340	250M*	100n	15n	150n	100n	800m	10 Ø	50m	5.0 #Δ	14	4.0p		N-ME	Si	175J	TO5	AØ
65#	2SA552	250M§	100nØ		270n	300nØ	750m	10 Ø	10mØ	40 #Δ	16	7.0pⓅ		P-PE	Si	175J	TO39	AØ
66	2N4960	250M§Δ	125n	50n	800n	250n	3.5 Ø	10 Ø	.10mØ	30 Δ		15p$Ⓟ		N	Si	200J	TO39	AØ
67	2N4961	250M§Δ	125n	50n	800n	250n	1.5 Ø	10 Ø	.10mØ	30 Δ		15p$Ⓟ		N	Si	200J	TO39	AØ
68	2N4962	250M§Δ	125n	50n	800n	250n	3.5 Ø	10 Ø	.10mØ	30 Δ		15p$Ⓟ		N	Si	200J	TO18	AØ
69	2N4963	250M§Δ	125n	50n	800n	250n	1.5 Ø	10 Ø	.10mØ	30 Δ		15p$Ⓟ		N	Si	200J	TO18	AØ
70	2N3946	250M§Δ	300n	35n	300n	75n	360m	10 Ø	1.0mØ	250 Ⓟ	20	4.0pⓅ		N	Si	200J	TO18	A
71	JAN2N744	280M§Δ	16nØ	18n$		45nØ	300m	250mØ	1.0mØ	20 Δ		5.0pⓅ		N	Si	175J	TO18	AØ
72	2N2635	280M	30n	20n	185n	65n	150m	1.0 Ø	50mØ	45 Δ		5.0pⓅ		P-E	Ge	100S	TO18	AØ
73	EN744	282M§Δ	16nØ	18n$		24nØ	500mØ	350mØ	10mØ	40 #Δ		5.0pⓅ		N-DPE	Si	125J	TO106	A
74#	BSX78	285M§	15n	15n	50n	75n	300m	500mØ	1.0mØ	90 Ⓟ	25			PL	Si	175J	TO18	AØ
75#	2S95A	300M§Δ			25n		300m	350mØ	10mØ	200 Ⓟ		6.0pⓅ		N-A	Si	200S	TO18	Ø
76	TIS45	300M§Δ			25n		360m	1.0 Ø	10mØ	120 #Ⓟ	40	6.0pⓅ		P-E	Si	150J	TO92	
77#	2G104	300M	4.0n				150m	5.0 Ø	10m	40				P-ME	Ge	100J	TO18	
78#	BLY37	300M§Δ	5.0n†	20nØ	30nØ	13n†	100m	2.0 Ø	10mØ	54		3.5p		N-PE	Si	100J	u18	
79	2N3261	300M§Δ	7.0n	6.0n	10n	6.0n	300m	1.0 Ø	200mØ	20 #Δ		3.5pⓅ		N	Si	200S	TO52	AØ
80#	BLY36	300M§Δ	7.0n†	20nØ	30nØ	14n†	100m	2.0 Ø	10mØ	34		3.5p		N-PE	Si	100J	u18	
81#	2SB339H	300M	12n	2.0n	8.0n	14n	12 Ø	12 Ø	4.0mØ	45				P	Ge	91J	TO3	
82#	2SB341H	300M	12n	2.0n	8.0n	14n	12 Ø	12 Ø	4.0mØ	45				P	Ge	91J	TO3	
83#	2SC340H	300M	12n	2.0n	8.0n	14n	12 Ø	12 Ø	4.0mØ	45				P	Ge	91J	TO3	
84#	2SC400	300M§	12n†	10n†	200n†	30n†	250m	1.0 Ø	10mØ	350 *Ⓟ	50	6.0pⓅ		N-PE	Si	175J	TO18	AØ
85#	BSX90	300MΔ§	12nØ			40nØ	300m	.35 Ø	10mØ	20 Δ#	10	5.0pⓅ		NPE	Si	175J	TO18	AØ
86#	BSX91	300MΔ§	12nØ			45nØ	300m	.35 Ø	10mØ	40 Δ#	10	5.0pⓅ		NPE	Si	175J	TO18	AØ
87	MMT3904	300M§Δ	13n†	24n†	125n†	11n†	225m	1.0 Ø	1.0mØ	70 Δ	20	4.0pⓅ		NØ	Si	135J	u23c	F
88	2N2381	300M§Δ	15n	7.0n	30n	15n	300m	.50 Ø	200mØ	40 Δ		6.0pⓅ		P	Ge	100	TO39	AØ
89	2N2382	300M§Δ	15n	7.0n	30n	15n	300m	.50 Ø	200mØ	40 Δ		6.0pⓅ		P	Ge	100	TO39	AØ
90	2N3249	300M§Δ	15n	5.0n	60n	20n	1.2 Ø	1.0 Ø	10mØ	100 #Δ		8.0pⓅ		P	Si	200J	TO18	AØ
91	2N4264	300M§Δ	15n	8.0n	20n	15n	310m	1.0 Ø	30mØ	40 Δ	22	4.0pⓅ		N	Si	135S	TO92	A
92	2N4265	300M§Δ	15n	8.0n	20n	15n	310m	1.0 Ø	30mØ	90 Δ	22	4.0pⓅ		N	Si	135S	TO92	A
93	2N784A	300M§	20nØ		15n	25n	360m	1.0 Ø	10m	88 †	19	3.5pⓅ		N-E	Si	200J	TO18	AØ
94#	2SC468H	300M§Δ	20n†		30n	30nØ†	200m	1.0 Ø	10mØ	200 *Ⓟ		6.0pⓅ		N-PE	Si	175J	R92b	A
95#	2SC488H	300M§Δ	20nØ†		30n	30nØ†	200m	1.0 Ø	10mØ	200 Ⓟ		6.0pⓅ		N-PE	Si	175		
96#	BFV43	300M§Δ	20nØ			30nØ	150m	1.0 Ø	100mØ	25 Δ	8.3	5.0pⓅ		NPE	Si	200J	u34b	P
97#	BFV44	300M§Δ	20nØ			30nØ	150m	1.0 Ø	100mØ	25 Δ	8.3	5.0pⓅ		NPE	Si	200J	u34b	P
98	2N2219A	300M§Δ	25n	10n	225n	60n	3.0 Ø	10 Ø	1.0mØ	50 Δ		8.0pⓅ	.15n	N	Si	175J	TO5	AØ
99	2N2222A	300M§Δ	25n	10n	225n	60n	1.8 Ø	10 Ø	1.0mØ	50 Δ		8.0pⓅ	.15n	N	Si	175J	TO18	AØ
100	2N2222B	300M§Δ	25n	10n	225n	60n	1.8 Ø	10 Ø	10mØ	75 Δ		8.0pⓅ	.15n	NØ	Si	200S	TO18	AØ
101	2N2957	300M§Δ	25n	15n	60n	35n	150m	1.0 Ø	50mØ	130		4.0pⓅ		P	Ge	100J	TO18	A
102	2N5582	300M§Δ	25n	10n	225n	60n	2.0 Ø	10 Ø	10mØ	75 Δ		8.0p$Ⓟ		N	Si	200S	TO46	AØ
103	A3T2222A	300M§Δ	25n	10n	225n	60n	225m	10 Ø	150mØ	300 #Ⓟ		8.0pⓅ		N-PE†	Si	150S	u44	A
104#	BFV85C	300M§Δ	25n	10n	225n	60n	360m	10 Ø	10mØ	50 Δ		8.0pⓅ		NPE	Si	175J	u26a	B
105#	BSX80	300M§Δ	25nØ†			70nØ†	275mØ	1.0 Ø	10mØ	30 Δ		6.0p		N-PE	Si	150	MM12	F
106#	PL4054	300M§Δ	25n	10n	225n	60n	220m	10 Ø	10mØ	75 Δ		8.0pⓅ		N-PEØ	Si	175S	u51	
107	2N3449	300M§Δ	30n	25n	55n	65n	150m	.25 Ø	10mØ	20 Δ	100	5.0pⓅ		P	Ge	100S	TO18	AØ
108	JAN2N3449	300M§Δ	30n	18n	60n	65n	150m	250mØ	10mØ	20 Δ	20	5.0pⓅ		P	Ge	100S	TO18	AØ
109	2N3724	300M§Δ	30n	10n	50n	25n	3.5 Ø	1.0 Ø	500mØ	35 #Δ		12pⓅ		N	Si	200J	TO5	AØ
110	2N3724A	300M§Δ	30n	10n	50n	25n	5.0 Ø	1.0 Ø	10mØ	30 Δ		12pⓅ		N	Si	200S	TO5	AØ

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	MAT	MAX. TEMP (°C)	DWG. No.	LEAD CODE
1	2N3725	300M§Δ	30n	10n	50n	30n	3.5 Ø	1.0 Ø	500mØ	35 #Δ		10pØ		N	Si	200J	TO5	AØ
2	2N3725A	300M§Δ	30n	10n	50n	30n	5.0 Ø	1.0 Ø	10mØ	30 Δ		10pØ		N	Si	200S	TO5	AØ
3	2N4013	300M§Δ	30n	10n	50n	25n	1.2 Ø	1.0	10m	30 Δ		10pØ		N	Si	200J	TO18	AØ
4	2N4014	300M§Δ	30n	10n	50n	30n	1.2 Ø	1.0	10m	30 Δ		10pØ		N	Si	200J	TO18	AØ
5#	ME9021	300M§Δ	30nØ			50nØ	250m	2.0 Ø	300mØ	10 #Δ	25	6.0pØ		N-PE†	Si	150J	TO106	A
6	MPS3639	300M§Δ	30n	10n	20n	12n	500mØ	300mØ	10mØ	30 #Δ	16	3.5pØ		P-E	Si	125J	X20b	
7	PET9021	300M§Δ	30nØ			50nØ	800mØ	1.0 Ø	10mØ	120 Ø	25	6.0pØ		N	Si	125J	R110	A
8	2N985	300M§	35nØ			80nØ	150m	500mØ	100m	60 Δ	30m	6.0p		P-EM	Ge	100J	TO18	AØ
9	2N3251	300M§Δ	35n	35n	200n	50n	360m	1.0 Ø	10mØ	300 #Ø		6.0pØ	.25n	P	Si	200J	TO18	AØ
10	2N3605	300M§Δ	35nØ		20n	45nØ	200m	1.0 Ø	10mØ	30 Δ		6.0pØ		N	Si	150S	R67	B
11	2N3605A	300M§Δ	35nØ		20n	45nØ	320m	1.0 Ø	10mØ	120 Ø		25p	6.0n	N	Si	120J	TO98	B
12	2N3904	300M§Δ	35n	35n	200n	50n	310m	1.0 Ø	.10mØ	40 #Δ		4.0pØ		NØ	Si	135J	TO92	A
13	CS3605	300M§Δ	35nØ		20n	45nØ	200m	1.0 Ø	10mØ	30 Δ		6.0pØ		N	Si	150S	TO106	
14	CS3904	300M§Δ	35n	35n	200n	50n	310m	1.0 Ø	.10mØ	40 #Δ		4.0pØ		NØ	Si	135J	TO106	
15	GET914	300M§Δ	35nØ		20n		360m	1.0 Ø	10mØ	120 #Ø		6.0p$Ø		N-PE	Si	125J	TO18	
16	MM1758	300M§Δ	35nØ			285nØ		10 Ø	150mØ	100 Δ		8.0pØ		N	Si		TO46	
17▼	MM3904	300M§Δ	35n	35n	200n	50n	360m	1.0 Ø	1.0mØ	70 Δ#		5.0pØ		N-ANØ	Si	200J	TO52	A
18#	NKT13329	300M§Δ	35n†		20n†	35n†	1.0 Ø	10 Ø	10mØ	40 Δ	7.0	5.0p		N	Si	200J	TO18	AØ
19#	NKT13429	300M§Δ	35n†		20n†	35n†	1.0 Ø	10 Ø	10mØ	80 Δ	7.0	5.0p		N	Si	200J	TO18	AØ
20	JAN2N708	300M§Δ	40nØ		25n	75nØ	1.2 Ø	1.0 Ø	500uØ	15 Δ	40	6.0pØ		N	Si	200S	TO18	AØ
21	2N2481	300M§Δ	40nØ	40nØ	20n	45nØ	360m	1.0 Ø	10mØ	40 #Δ		5.0pØ		N	Si	200J	TO18	AØ
22	2N3210	300M§Δ	40nØ		20n	40nØ	1.2 Ø	1.0 Ø	10m	120 #Δ	3.7	6.0pØ		N	Si	300S	TO18	AØ
23	2N3606	300M§Δ	40nØ		35n	60nØ	200m	1.0 Ø	10mØ	30 Δ		6.0pØ		N	Si	150S	R67	B
24	2N3606A	300M§Δ	40nØ		35n	60nØ	320m	1.0 Ø	10mØ	120 Ø		25p	6.0n	N	Si	120J	TO98	B
25	2N3734	300M§Δ	40n	8.0n	30n	30n	1.0	1.0 Ø	500mØ	35 Δ	20	9.0pØ		N	Si	200S	TO5	AØ
26	2N3736	300M§Δ	40n	8.0n	30n	30n	500m	1.0 Ø	150mØ	40 Δ	20	9.0pØ		N	Si	200S	TO46	AØ
27#	2SA571	300M§	40nØ		130nØ	160nØ	800m	10 Ø	50mØ	40 Δ	1.2	25pØ		P-PE	Si	175J	TO5	
28#	BFV46	300M§Δ	40nØ		30n	50nØ	150m	2.0 Ø	200mØ	12 Δ	3.5	5.0pØ		NPE	Si	200J	u34b	P
29#	BFV83A	300M§Δ	40nØ		20n	40nØ	300m	5.0 Ø	500mØ	10 Δ	3.5	6.0pØ		NPE	Si	200J	u26a	B
30▼#	BSV35A	300M§Δ	40nØ		25n	75nØ	350m	1.0 Ø	10mØ	20 Δ	60	6.0pØ		P	Si	175J	u53	F
31#	BSX87	300MΔ§	40nØ			40nØ	360m	1.0 Ø	10mØ	30 Δ#	3.5	4.5p		NPE	Si	200J	TO18	AØ
32#	BSX88	300MΔ§	40nØ			75nØ	360m	1.0 Ø	10mØ	30 Δ#	40	4.0p	.30n	NPE	Si	200J	TO18	AØ
33#	BSY21	300M§Δ	40nØ			40n	360m	1.0 Ø	10mØ	120 #Ø	3.5	6.0pØ		N	Si	200J	TO18	
34	CS3606	300M§Δ	40nØ		35n	60nØ	200m	1.0 Ø	10mØ	30 Δ		6.0pØ		N	Si	150S	TO106	
35	EN708	300M§Δ	40nØ		75nØ		200m	1.0 Ø	10mØ	120 #Ø	85	6.0pØ	75n†	N	Si	125J	TO106	A
36	EN914	300M§Δ	40nØ		40nØ		200m	1.0 Ø	10mØ	120 #Ø	80	6.0pØ		N	Si	125J	TO106	A
37	GET708	300M§Δ	40nØ		35n		360m	1.0 Ø	10mØ	120 #Ø		6.0p$Ø		N-PE	Si	125J	TO18	
38	TIS46	300M§Δ	40nØ		20n	40nØ	360m	1.0 Ø	10mØ	120 #Ø		6.0pØ		P-E	Si	150J	TO92	
39	2N3607	300M§Δ	45nØ		45n	70nØ	200m	1.0 Ø	10mØ	30 Δ		6.0pØ		N	Si	150S	R67	B
40	2N5139	300M§Δ	45n	20n	170n	50n	500mØ	10 Ø	50mØ	15 #Δ		5p$Ø		P	Si	125J	TO106	A
41	CS3607	300M§Δ	45nØ		45n	70nØ	200m	1.0 Ø	10mØ	30 Δ		6.0pØ		N	Si	150S	TO106	
42	2N829	300M§Δ	50nØ	50n$		100nØ	300mØ	1.0 Ø	150mØ	50 Δ	200m	4.0pØ		P	Ge	100S	TO18	AØ
43	2N960	300M§Δ	50nØ			85nØ	150m	1.0 Ø	100mØ	20 Δ	20	4.0pØ		P	Ge	100S	TO18	AØ
44	2N961	300M§Δ	50nØ			85nØ	150m	1.0 Ø	100mØ	20 Δ	20	4.0pØ		P	Ge	100S	TO18	AØ
45	2N962	300M§Δ	50nØ			100nØ	150m	1.0 Ø	100mØ	20 Δ	20	4.0pØ		P	Ge	100S	TO18	AØ
46	JAN2N962	300M§Δ	50nØ			100nØ	150m	1.0 Ø	100mØ	20 Δ	20	5.0pØ		P-E	Ge	100J	TO18	AØ
47	2N964	300M§Δ	50nØ			85nØ	150m	1.0 Ø	100mØ	40 Δ	18	4.0pØ		P	Ge	100S	TO18	AØ
48	JAN2N964	300M§Δ	50nØ			85nØ	150m	1.0 Ø	100mØ	40 Δ	18	5.0pØ		P-E	Ge	100J	TO18	AØ
49	2N965	300M§Δ	50nØ			85nØ	150m	1.0 Ø	100mØ	40 Δ	18	4.0pØ		P	Ge	100S	TO18	AØ
50	2N966	300M§Δ	50nØ			100nØ	150m	1.0 Ø	100mØ	40 Δ	18	4.0pØ		P	Ge	100S	TO18	AØ
51	2N3722	300M§Δ	50n	12n	85n	45n	800m	1.0 Ø	100mØ	40 #Δ		10pØ		N	Si	200J	TO5	AØ
52	2N5228	300M§Δ	50n	25n	90n	50n	310m	.30 Ø	10mØ	30 Δ	.40	5p$Ø		P	Si	135S	TO92	A
53#	ME9022	300M§Δ	50nØ			70nØ	250m	2.0 Ø	300mØ	5.0 #Δ	40	6.0pØ		N-PE†	Si	150J	TO106	A
54	PET9022	300M§Δ	50nØ			70nØ	800mØ	1.0 Ø	10mØ	30 Δ	40	6.0pØ		N	Si	125J	R110	A
55	2N705	300M	60n	75nØ	100n	100n	300mØ	5.0 Ø	10m	70	44			P-ME	Ge	100J	TO18	AØ
56	2N710	300M	60n	75nØ	100n	100n	300mØ	500mØ	10m	40	50			P-ME	Ge	100J	TO18	AØ
57#	BSX32	300M§Δ	60nØ			60nØ	3.5 Ø	1.0 Ø	100mØ	90 #		10pØ		N-DPE	Si	200J	TO5	Ø
58	2N3723	300M§Δ	70n	15n	110n	50n	800m	1.0 Ø	100mØ	40 #Δ		9.0pØ		N	Si	200J	TO5	AØ
59	2N5141	300M§Δ	70n	45n	100n	70n	500mØ	2.0 Ø	10mØ	25 #Δ		7p$Ø		P	Si	125J	TO106	A
60	2N968	300M§Δ	75nØ			125nØ	150m	.70 Ø	.25mØ	20 Δ	25	8.0pØ		P	Ge	100J	TO18	AØ
61	2N969	300M§Δ	75nØ			125nØ	150m	.70 Ø	.25mØ	20 Δ	25	8.0pØ		P	Ge	100J	TO18	AØ
62	2N972	300M§Δ	75nØ			150nØ	150m	.70 Ø	.25mØ	40 Δ	25	8.0pØ		P	Ge	100J	TO18	AØ
63	2N973	300M§Δ	75nØ			150nØ	150m	.70 Ø	.25mØ	20 Δ	25	8.0pØ		P	Ge	100J	TO18	AØ
64	2N974	300M§Δ	75nØ			275nØ	150m	.70 Ø	.25mØ	20 Δ	25	8.0pØ		P	Ge	100J	TO18	AØ
65	2N975	300M§Δ	75nØ			275nØ	150m	.70 Ø	.25mØ	40 Δ	25	8.0pØ		P	Ge	100J	TO18	AØ
66	JAN2N2481	300M§Δ	75nØ		20n	45nØ	360m	1.0 Ø	10mØ	120 Ø	25	5.0pØ		N	Si	200J	TO18	AØ
67	2N711	300M	100nØ		200n	150n	300m	500mØ	10m	30	50	5.0p		P-ME	Ge	100J	TO18	AØ
68	2N970	300M§Δ	100nØ			275nØ	150m	.70 Ø	.25mØ	20 Δ	25	8.0pØ		P	Ge	100J	TO18	AØ
69	2N971	300M§Δ	100nØ			275nØ	150m	.70 Ø	.25mØ	20 Δ	25	8.0pØ		P	Ge	100J	TO18	AØ
70	2N1012	300MΔ	150nØ			200nØ	150m	.25 Ø	100m	40 Δ	2.0	20pØ		N	Ge	100S	TO5	A§
71#	BSW19	300M§Δ	150nØ			800nØ	215m*	1.0 Ø	10mØ	120 Ø	30	6.0pØ		N-PE	Si	175J	TO18	AØ
72▼#	BSW33	300M§	200nØ	30n†	150n†	40n†	125m#	0.0	10m	180 Ø		3.0p$		N-PE†	Si	125J	MM13	F
73▼#	BSW34	300M§	200nØ	30n†	150n†	40n†	125m#	0.0	10m	300 Ø		3.0p$		N-PE†	Si	125J	MM13	F
74▼#	BSW35	300M§	200nØ	30n†	150n†	40n†	125m#	0.0	10m	200 Ø		3.0p$		N-PE†	Si	125J	MM13	F
75	2N3947	300M§Δ	300n	35n	375n	75n	360m	10 Ø	1.0mØ	700 Ø	20	4.0pØ		N	Si	200J	TO18	A
76#	2G103	300M	4000n				150m	5.0	10m	40				P-ME	Ge	100J	TO18	
77	2N706	320MΔ			60n		300m	1.0 Ø	10mØ	20 Δ	60	6.0pØ		N-D	Si	175J	TO18	AØ
78	CS706	320MΔ			60n		650mØ	10 Ø	10mØ	20 Δ	60	6.0pØ		N-D	Si		R97a	
79#	2SC150H	320M§	.08n	.05n	.15n	.08n	750m	6.0 Ø	10mØ	20 Δ		7.0p		N	Si	175J	TO39	
80#	2SC151H	320M§	.08n	.05n	.15n	.08n	750m	6.0 Ø	10mØ	20 Δ		7.0p		N	Si	175J	TO39	
81#	2SC152H	320M§	.08n	.05n	.15n	.08n	750m	6.0 Ø	10mØ	20 Δ		7.0p		N	Si	175J	TO39	
82	2N1204	320M§	35n				200m	1.5 Ø	400mØ	15 #Δ	2.5	7.0p		P-AD	Ge	100S	TO39	AØ
83	2N1494	320M§	35n				400m	1.5 Ø	400mØ	15 #Δ	2.5	7.0p		P-AD	Ge	100S	TO31	AØ
84	2N706C	320MΔ	40nØ		25n	75nØ	360m	1.0 Ø	10mØ	20 Δ		5.0pØ		N-D	Si	300S	TO18	AØ
85	2N2501	350M§			15n		360m	1.0 Ø	10mØ	150		2.8p		N-PE	Si	200J	TO18	A
86#	2SC98	350M§	7.0n			25n	300m	350mØ	10mØ	45				N-PE	Si	175J	TO18	
87#	2SC99	350M§	7.0n			25n	300m	350mØ	10mØ	80				N-PE	Si	175J	TO18	
88#	2SC131	350M§	8.0n†		20n†	20n†	350m	1.0 Ø	10mØ	60	7.0	4.0p		N-PE	Si	175J	TO18	
89#	2SC132	350M§	8.0n†		20n†	20n†	350m	1.0 Ø	10mØ	60	7.0	4.0p		N-PE	Si	175J	TO18	
90#	2SC133	350M§	8.0n†		20n†	20n†	350m	1.0 Ø	10mØ	60	8.0	4.0p		N-PE	Si	175J	TO18	
91#	2SC137	350M§	8.0n†		20n†	30n†	350m	1.0 Ø	10mØ	50	7.0	4.0p		N-PE	Si	175J	TO18	
92#	BSY38	350M§	9.0nØ†			25nØ†	300m	350mØ	10mØ	60 Ø	6.0	5.0p		N-PE	Si	175J	TO18	Ø
93#	BSY39	350M§	9.0nØ†			25nØ†	300m	350mØ	10mØ	120 Ø	6.0	5.0p		N-PE	Si	175J	TO18	Ø
94#	2SC134	350M§	10n†		100n†	25n†	350m	1.0 Ø	10mØ	60	3.0	4.0p		N-PE	Si	175J	TO18	
95#	2SC135	350M§	10n†		100n†	25n†	350m	1.0 Ø	10mØ	60	5.0	4.0p		N-PE	Si	175J	TO18	
96#	2SC136	350M§	10n†		100n†	25n†	350m	1.0 Ø	10mØ	60	5.0	4.0p		N-PE	Si	175J	TO18	
97	2N3510	350M§Δ	12n	10n	16n	12n	360m	1.0 Ø	150mØ	150 Ø	2.6	4.0pØ		N	Si	200	TO52	AØ
98	2N3647	350M§Δ	12n	10n	16n	12n	400m	1.0 Ø	150mØ	25 Δ		4.0pØ		N	Si	200	TO46	AØ
99	CS2369	350M§Δ	12nØ	12nØ	13n	18nØ	250m	2.0 Ø	100uØ	20 #Δ	25	4.0pØ		N-DPL	Si	150J	R97a	A
100	GET2369	350M§Δ	12nØ	12nØ	18n	18nØ	360m	1.0 Ø	10mØ	120 Ø	25	4.5p$Ø		N-PE	Si	125J	TO18	
101	2N3009	350M§Δ	15nØ	18n$	25nØ		1.2 Ø	5.0 Ø	100mØ	25 #Δ		5.0pØ		N	Si	200J	TO52	
102	2N3013	350M§Δ	15nØ	18n$	25nØ		1.2 Ø	.40 Ø	30mØ	120 #Ø		5.0pØ		N	Si	200J	TO18	AØ
103	JAN2N3013	350M§Δ	15nØ		18n	25nØ	360m	400mØ	30mØ	120 #Ø		5.0pØ		N	Si	200J	TO52	AØ
104	2N3646	350M§Δ	15n	10n	20n	15n	500mØ	1.0 Ø	300mØ	15 Δ#		5.0pØ		N	Si	125J	R110	A
105	2N3829	350M§Δ	15n	10n	50n	15n	360m	.40 Ø	30mØ	30 #Δ		6.0pØ		P	Si	200S	TO52	AØ
106#	BFV83B	350M§Δ	15nØ		18n	25nØ	300m	1.0 Ø	300mØ	25 #Δ		5.0pØ		NPE	Si	200J	u26a	B
107#	BSX26	350M§Δ	15nØ	18n$		25nØ	1.2 Ø	1.0 Ø	300mØ	15 #Δ		5.0pØ		N-DPE	Si	200J	TO18	Ø
108#	BSX39	350MΔ	15nØ	18n$		25nØ	1.2 Ø	1.0 Ø	100mØ	55 #		5.0pØ		N-DPE	Si	200J	TO18	Ø
109	EN3009	350M§Δ	15nØ		25nØ		200m	.40 Ø	30mØ	120 #Ø	6.0	5.0pØ		N	Si	125J	TO106	A
110	EN3013	350M§Δ	15nØ		25nØ		200m	.40 Ø	30mØ	120 #Ø	6.0	5.0pØ		N	Si	125J	TO106	A

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	MAT T	MAX. TEMP (°C)	DWG. No.	L C E O A D D E
1	GET3013	350M§△	15nØ		18n	25nØ	360m	400mØ	30mØ	120 ☑	18	4.5p$☑		N-PE	Si	125J	TO18	
2	MPS3646	350M§△	15n	10n	20n	15n	500mØ	400mØ	30mØ	120 ☑		5.0p☑		N-EA	Si	125J	TO92	A
3	TIS55	350M§△	15n	10n	20n	15n	360m	500mØ	100mØ	25 #△		5.0p☑		N-PE	Si	125J	TO92	
4	2N3014	350M§△	16nØ	18n$	25nØ		1.2 Ø	.40 Ø	30mØ	120 #☑		5.0p☑		N	Si	200J	TO52	AØ
5#	BFV83C	350M§△	16nØ		18n	25nØ	300m	.40 Ø	30mØ	30 #△		5.0p☑		NPE	Si	200J	u26a	B
6#	BFV92	350M§△	16nØ		25n	35nØ	400m	1.0 Ø	30mØ	150 *☑		5.0p☑		N-PE	Si	175	L56f	
7#	BFV92N	350M§△	16nØ		25n	35nØ	400m	1.0 Ø	30mØ	150 *☑		5.0p☑		N-PE	Si	175	L56g	
8	EN3014	350M§△	16nØ		25nØ		200m	.40 Ø	30mØ	120 #☑	6.0	5.0p☑		N	Si	125J	TO106	A
9	GET3014	350M§△	16nØ		18n	25nØ	360m	400mØ	30mØ	120 ☑	18	4.5p$☑		N-PE	Si	125J	TO18	
10	MPS834	350M§△	16nØ		25n	30nØ	310m	1.0 Ø	10mØ	25 #△		4.0p☑		N-AN	Si	135J	TO92	A
11	TIS52	350M§△	16nØ		20n	25nØ	360m	.40 Ø	30mØ	120 #☑		5.0p☑		P-E	Si	150J	TO92	
12	GET3646	350M§△	18nØ		18n	28nØ	360m	400mØ	30mØ	120 ☑	80	4.5p$☑		N-PE	Si	125J	TO18	
13	2N984	350M§	20n			20n	60m	500mØ	10m	70	10	1.9p		P-MD	Ge	100S	TO18	A
14	2N2170	350M§	20n			18n	60m	500mØ	10m	70	10	1.9p		P-MD	Ge	100S	TO9	A
15#	BSX87A	350M△§	20nØ			30nØ	360m	1.0 Ø	10mØ	34 △#	2.5	2.5p		NPE	Si	200J	TO18	AØ
16	MD1128	350M§△	20nØ	30nØ	35nØ		300m	1.0 Ø	10mØ	25 △		4.0p☑		P-PE	Si	200J	L2d	
17#	2SC97A	350M§	30nØ		70n	90nØ	800m	1.0 Ø	500mØ	40 △#	1.2	10p☑		N-PE	Si	175J	TO39	AØ
18#	BSX88A	350M△§	30nØ			70nØ	360m	1.0 Ø	10mØ	30 △#	3.2	3.0p		NPE	Si	200J	TO18	AØ
19	2N4349	350M§	35n	20n	125n	40n	7.0 Ø	1.0	1.0	20	500m	12p		N-PE	Si	200	TO5	Ø
20#	ME0461	350M△	35n	35n	200n	50n	250m	1.0 Ø	10mØ	50 △		6.0p☑		P-PE	Si	150	R110	A
21#	2SC52	350M§	50n		250n	50n	500m	6.0 Ø	1.0mØ	50	2.5	4.0p	40n†	N-PL	Si	150J	TO18	
22#	2SC54	350M§	50n		250n	50n	300m	6.0 Ø	1.0m	50	25	4.0p	40n†	N-PL	Si	150J	TO18	
23#	BFV31	350M§△	60nØ			100nØ	150m	1.0 Ø	100mØ	15 △	20	8.0p☑		PPE	Si	200J	u34b	P
24#	BFV32	350M§△	60nØ			100nØ	150m	1.0 Ø	100mØ	10 △	20	8.0p☑		PPE	Si	200J	u34b	P
25#	BSY29	380M§	5.0n†	7.0n†	7.0n†	13n†	300m	2.0 Ø	10mØ	54		3.5p		N-PE	Si	175J	TO18	
26#	BSY28	380M§	7.0n†	7.0n†	8.0n†	14n†	300m	2.0 Ø	10mØ	34		3.5p		N-PE	Si	175J	TO18	
27	2N921	400M§			25n		360m	1.0 Ø	10mØ	40	20	4.0p		N-ME	Si	200J	TO18	AØ
28#	2SA548H	400M§			150n		200m	1.0 Ø	10mØ	1.0 ☑		8.0p		P	Si	175J		
29#	BSV53	400M		12n	13n	10n	300m	1.0 Ø	10mØ	120 ☑	2.5	4.0p		N	Si	150	u34	
30#	BSV53P	400M		12n	13n	10n	150m	1.0 Ø	10mØ	120 ☑	2.5	4.0p		N	Si	150	u17c	E
31#	BSV54	400M		12n	13n	10n	300m	1.0 Ø	10mØ	120 ☑	2.5	4.0p		N	Si	150	u34	
32#	BSV54P	400M		12n	13n	10n	150m	1.0 Ø	10mØ	120 ☑	2.5	4.0p		N	Si	150	u17c	E
33	TP4274	400M§△			12nØ		280m	1.0 Ø	10mØ	35 △		4.0p$		N	Si		X93	A
34	TP4275	400M§△			12nØ		280m	1.0 Ø	10mØ	35 △		4.0p$		N	Si		X93	A
35	2N4274	400M§△	7.0n	9.0n	13n	8.0n	700mØ	1.0 Ø	10mØ	120 #☑		4p$☑		N	Si	125J	R110	A
36	2N4275	400M§△	7.0n	9.0n	13n	8.0n	700mØ	1.0 Ø	10mØ	120 #☑		4p$☑		N	Si	125J	R110	A
37	PET9001	400M§△	9.0nØ†			13nØ†	800mØ	1.0 Ø	10mØ	120 ☑	25	4.0p☑		N	Si	125J	R110	A
38	PET9002	400M§△	9.0nØ†			13nØ†	800mØ	1.0 Ø	10mØ	150 ☑	25	4.0p☑		N	Si	125J	R110	A
39	2N744	400M§	10n	16nØ	45nØ		300m	.35 Ø	10mØ	80	10	5.0p		N-E	Si	300S	TO18	AØ
40	2N5187	400M§△	10n	8.0n	13n	8.0n	1.0 Ø	.40 Ø	30mØ	25 △	25	3.5p☑		N	Si	200S	TO52	AØ
41	2N743	400M§	11n	16nØ		40nØ	300m	.35 Ø	10m	40	10	5.0p		N-E	Si	300S	TO18	AØ
42	2N4294	400M§△	12n	9.0n	15n	15n	200m	1.0 Ø	10mØ	30 △	25	5.0p☑		N	Si	150	u29	
43#	BFV42	400M§△	12nØ			20nØ	150m	2.0 Ø	100mØ	15 △	30	4.0p☑		NPE	Si	200J	u34b	P
44#	BFV87	400M§△	12nØ		10n	18nØ	300m	2.0 Ø	100mØ	10 #△	25	4.0p☑		NPE	Si	200J	u26a	B
45#	BSW58	400M§△	12nØ		10n	20nØ	125m#	2.0 Ø	100mØ	20 △	30	4p$☑		NPE	Si	125J	MM13	F
46#	BSX19	400M§△	12nØ		10n	18nØ	360m	1.0 Ø	10mØ	60 ☑	30			N-PE	Si	200J	TO18	AØ
47#	ME9001	400M§△	12nØ			18nØ	250m	2.0 Ø	100mØ	20 △	25	4.0p☑		N-PE†	Si	150J	TO106	A
48#	MT9001	400M§△	12nØ			18nØ	100m	1.0 Ø	10mØ	40 △				N-PE	Si	150		
49	PET9001A	400M§△	12nØ			15n	800mØ	1.0 Ø	10mØ	120 ☑	25	4.0p☑		N	Si	125J	R110	A
50	PET9002A	400M§△	12nØ			15n	800mØ	1.0 Ø	10mØ	150 ☑	25	4.0p☑		N	Si	125J	R110	A
51#	PL4021	400M§△	12nØ		10n	15nØ	150m	1.0 Ø	10mØ	60 ☑	25	4.0p☑		NPE	Si	175S	u51	
52#	TIS47	400M§△	12nØ		13n	18nØ	360m	1.0 Ø	10mØ	20 #△	25	4.0p☑		N-PE	Si	150J	TO92	
53#	ZT2368	400M§△	12nØ	12nØ	15nØ	15nØ	360m	1.0 Ø	10mØ	20 △		4.0p☑		N-PL	Si	200	TO18	
54	2N4419	400M§△	14n	10n	14n	16n	500mØ	1.0 Ø	10mØ	30 #△	25	4p$☑		N†	Si	150S	X55	A
55	2N418	400M	15n					2.0 Ø	4.0m	40 △	.50			P	Ge	100J	TO3	CØ
56	2N420	400M	15n					1.5	60m	40 △	.50			P	Ge	100J	TO3	CØ
57	2N420A	400M	15n					.50	25m	40 △	.50			P	Ge	100J	TO3	CØ
58	2N3011	400M§△	15nØ	13n$	20nØ		1.2 Ø	.35 Ø	10mØ	120 #☑		4.0p☑		N	Si	200J	TO18	AØ
59	2N4389	400M§△	15n	10n	75n	30n	500mØ	1.0 Ø	10mØ	30 #△		6.0p☑		P	Si	125J	R124	
60	A3T3011	400M§△	15nØ		14n	20nØ	225m	350mØ	10mØ	120 #☑		4.0p☑		N-PE†	Si	150S	u44	A
61#	BSX28	400M§△	15n			20nØ	1.2 Ø	400mØ	30mØ	70 #	3.0	4.0p☑		N-DPE	Si	200J	TO18	AØ
62	EN3011	400M§△	15nØ	13n$		20nØ	500mØ	350mØ	10mØ	120 #☑		4.0p☑		N-DPE	Si	125J	TO106	A
63#	ME9002	400M§△	15nØ			20nØ	250m	2.0 Ø	100mØ	15 △	25	4.0p☑		N-PE†	Si	150J	TO106	A
64♥#	ME9003	400M§△	15nØ		20nØ		250m	2.0 Ø	10	100 #△	25	9.0p☑		N-PE†	Si	150J	R124	
65#	MT9002	400M§△	15nØ			20nØ	100m	1.0 Ø	10mØ	30 △				N-PE	Si	150		
66#	TIS51	400M§△	15nØ		18n	23nØ	360m	400mØ	30mØ	25 #△		4.0p☑		N-PE	Si	150J	TO92	
67♦#	ZTX312	400M§△	15nØ		13n	20nØ	300m	6.0 Ø	1.0mØ	20 △	24	4.0p☑		N-PL†	Si	125A	X59	F
68	2N3576	400M§△	18n	12n	30n	20n	360m	.50 Ø	10mØ	120 ☑		4.5p☑		P	Si	200S	TO72	GØ
69#	BFV81B	400M§△	18n	12n	30n	20n	300m	.50 Ø	10mØ	20 △		4.5p		PPE	Si	200S	u26a	B
70	2N2097	400M§	20n		50n	40n	250m	1.0 Ø	200m	70	4.0	15p		P-D	Ge	100S	TO31	A
71	2N2100	400M§	20n		50n	40n	250m	1.0 Ø	200m	70	4.0	15p		P-D	Ge	100S	TO9	A
72	2N4453	400M§△	20n	35n	65n	20n	300m	.50 Ø	30mØ	40 #△		6p$☑		P	Si	200S	TO46	A
73	2N5140	400M§△	20n	15n	20n	15n	500mØ	1.0 Ø	10mØ	20 #△		5p$☑		P	Si	125J	TO106	A
74#	2SC67	400M§	20nØ		20n	40nØ	360m	1.0 Ø	10mØ	80 †				N-PE	Si	175J	TO18	
75#	2SC68	400M§	20nØ		20n	40nØ	360m	1.0 Ø	10mØ	100 †		3.5p		N-PE	Si	175J	TO18	
76#	2SC269	400M§	20nØ		20n	40nØ	150m	1.0 Ø	10mØ	200 ☑	25	6.0p☑		N-PE	Si	150J	u23a	
77#	2SC356	400M§	20nØ		20n	40nØ	300m	1.0 Ø	10mØ	60		4.5p		NPE	Si	175J	TO46	AØ
78#	BFV29	400M§△	20n	15n	30n	20n	150m	1.0 Ø	100mØ	10 #△		4.5p		PPE	Si	200S	u34b	P
79#	P346A	400M§△	20nØ		20n	30nØ	300m	2.0 Ø	10mØ	25 △		4.0p☑		N-PE	Si	175J	TO18	Ø
80	2N5186	400M§△	25nØ			25nØ	500mØ$	1.0 Ø	10mØ	25 △	30	3.0p☑		N	Si	200S	TO52	AØ
81#	BSW11	400M§△	25nØ			50nØ	50m*	1.0 Ø	10mØ	50 △	35	3.0p☑		N-PE	Si	125J	u47	D
82	2N4451	400M§△	30n	35n	65n	30n	300m	.50 Ø	30mØ	40 #△		6p$☑		P	Si	200S	TO46	A
83#	2SA417	400M§	30nØ		30n	40nØ	150m	300mØ	10mØ	70		4.0p		PEM	Ge	100J	TO46	AØ
84#	BSV55	400M	30nØ			50nØ	300m	500mØ	30mØ	150 ☑	5.0	6.0p		P	Si	150	u34	
85#	BSV55P	400M	30nØ			50nØ	150m	500mØ	30mØ	150 ☑	5.0	6.0p		P	Si	150	u17c	E
86	2N2096	400M§	35n		70n	60n	250m	1.5 Ø	400m	40	1.8	15p		P-D	Ge	100S	TO31	A
87	2N706B	400M§	40nØ			75nØ	300m	1.0 Ø	10m	40	40	4.5p	39n†	N-ME	Si	175J	TO18	AØ
88	2N4034	400M§△	40n	15n	140n	40n	1.0 Ø	1.0 Ø	1.0mØ	60 △	130	3.5p$☑		P	Si	200J	TO18	AØ
89	2N4121	400M§	40n	15n	140n	40n	200m	1.0 Ø	10mØ	70 △#	130	4.5p$	50n	P	Si	125J	R110	A
90	2N4122	400M§	40n	15n	140n	40n	200n	1.0 Ø	10mØ	150 #△	130	4.5p$	50n	P	Si	125J	R110	A
91	2N4916	400M§△	40n	15n	140n	40n	200m	1.0 Ø	10mØ	70 #△		4.5p$	.05n	P	Si	125J	R124	A
92#	BSY19	400M△	40n		75nØ		360m	1.0 Ø	10mØ	30 △	40	6.0p☑		N-PL	Si	200J	TO18	
93#	BFX48	400M§△	50nØ			160nØ	1.0 Ø	1.0 Ø	10mØ	160 #		3.5p☑		P-DPE	Si	200J	TO18	Ø
94#	BSX49	400M§	50nØ			95nØ	1.0 Ø	1.0 Ø	10mØ	37 *△		4.5p$		N-DPE	Si	200J	TO18	AØ
95	2N2894	400M§△	60nØ			90nØ	360m	.50 Ø	30mØ	150 #☑		6.0p☑		P	Si	200J	TO18	AØ
96	2N3012	400M§△	60nØ		75nØ		1.2 Ø	.50 Ø	30mØ	120 #☑		6.0p☑		P	Si	200J	TO18	AØ
97	2N3209	400M§△	60nØ			90nØ	360m	500mØ	30mØ	30 #△	6.0	5.0p☑		P-PE	Si	200J	TO18	AØ
98	A3T2894	400M§△	60nØ			90nØ	225m	500mØ	30mØ	150 #☑		6.0p☑		P-PE†	Si	150S	u44	A
99#	BFV81	400M§△	60nØ			90nØ	300m	.50 Ø	30mØ	40 #△		6.0p☑		PPE	Si	200J	u26a	B
100#	BFV81A	400M§△	60nØ			75nØ	300m	.50 Ø	30mØ	30 #△		6.0p☑		PPE	Si	200J	u26a	B
101#	BFV91	400M§△	60nØ			100nØ	400m	500mØ	30mØ	120 *☑		6.0p☑		P-PE	Si	175J	L56d	
102#	BFV91N	400M§△	60nØ			100nØ	400m	500mØ	30mØ	120 *☑		6.0p☑		P-PE	Si	175J	L56e	
103#	BSV21	400M§△	60nØ			75nØ	360m	.50 Ø	30mØ	120 #☑		6.0p☑		PPE	Si	200J	TO18	AØ
104♥#	BSV37	400M§△	60nØ			90nØ	350m	500mØ	30mØ	150 ☑	15	6.0p☑		P	Si	175J	u53	F
105#	BSV55A	400M	60nØ			90nØ	300m	500mØ	30mØ	120 ☑	5.0	6.0p		P	Si	150	u34	
106#	BSV55AP	400M	60nØ			90nØ	150m	500mØ	30mØ	120 ☑	5.0	6.0p		P	Si	150	u17c	E
107#	BSX29	400M§△	60nØ			90nØ	1.2 Ø	500mØ	30mØ	60 #	5.0	6.0p☑		P-DPE	Si	200J	TO18	AØ
108#	TIS50	400M§△	60nØ			90nØ	360m	300mØ	10mØ	30 #△		6.0p☑		P-PE	Si	150J	TO92	
109♦#	ZTX510	400M§△	60n†Ø			90n†Ø	250m	500mØ	30mØ	150 ☑#		6.0p☑		P-PL†	Si	125A	X59	F
110#	BSX48	400M§	65nØ			110nØ	1.0 Ø	1.0 Ø	10mØ	37 *△		4.5p$		N-DPE	Si	200J	TO18	AØ

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	MAT	MAX. TEMP (°C)	DWG. No.	LEAD CODE
1	2N828	400M§	70nØ		50n	50n	150m	300mØ	10m	40		3.5p		P-EM	Ge	100J	TO18	AØ
2#	V405A	400M§△	80nØ			110nØ	1.0 Ø	2.0 Ø	10mØ	20 #△			3.0n	P-DPE	Si	175J	TO18	Ø
3	2N4026	400M§☑	100nØ		350n	50n	2.0 Ø	5.0 Ø	500mØ	25 #△	1.0	20p$☑		P	Si	200J	TO18	AØ
4	2N4027	400M§☑	100nØ		350n	50n	2.0 Ø	5.0 Ø	500mØ	25 #△	1.0	20p$☑		P	Si	200J	TO18	AØ
5	2N4030	400M§☑	100nØ		350n	50n	4.0 Ø	5.0 Ø	500mØ	25 #△	1.0	20p$☑		P	Si	200J	TO5	AØ
6	2N4031	400M§☑	100nØ		350n	50n	4.0 Ø	5.0 Ø	500mØ	25 #△	1.0	20p$☑		P	Si	200J	TO5	AØ
7#	2SC752G	400M§	100nØ		30n	70n	200m	1.0 Ø	10mØ	240 *☑	12	6.0p☑		N-PE	Si	125J	R67a	B
8#	2SC407	400M†	1000n	200n	4.0u	1.0u	100 Ø	5.0 Ø	5.0m	20	.20	500p☑		P	Si	150J	MD10	
9#	2SC408	400M†	1000n	200n	4.0u	1.0u	100 Ø	5.0 Ø	5.0m	40	.20	500p☑		P	Si	150J	MD10	
10#	2SC409	400M†	1000n	200n	4.0u	1.0u	100 Ø	5.0 Ø	5.0m	20	.20	500p☑		P	Si	150J	MD10	
11#	2SC410	400M†	1000n	200n	4.0u	1.0u	100 Ø	5.0 Ø	5.0m	40	.20	500p☑		P	Si	150J	MD10	
12#	2SC411	400M†	1000n	200n	4.0u	1.0u	100 Ø	5.0 Ø	5.0m	20	.20	500p☑		P	Si	150J	MD10	
13#	2SC412	400M†	1000n	200n	4.0u	1.0u	100 Ø	5.0 Ø	5.0m	40	.20	500p☑		P	Si	150J	MD10	
14#	2SC431	400M†	1000n	200n	4.0u	1.0u	200 Ø	5.0 Ø	10m	20	.20	1m☑		P	Si	150J	MD18	
15#	2SC432	400M†	1000n	200n	4.0u	1.0u	200 Ø	5.0 Ø	10m	40	.20	1m☑		P	Si	150J	MD18	
16#	2SC433	400M†	1000n	200n	4.0u	1.0u	200 Ø	5.0 Ø	10m	20	.20	1m☑		P	Si	150J	MD18	
17#	2SC434	400M†	1000n	200n	4.0u	1.0u	200 Ø	5.0 Ø	10m	40	.20	1m☑		P	Si	150J	MD18	
18#	2SC435	400M†	1000n	200n	4.0u	1.0u	200 Ø	5.0 Ø	10m	20	.20	1m☑		P	Si	150J	MD18	
19#	2SC436	400M†	1000n	200n	4.0u	1.0u	200 Ø	5.0 Ø	10m	40	.20	1m☑		P	Si	150J	MD18	
20#	2SC321H	450M§			10n		360m	1.0 Ø	10mØ	30 △		6.0p		N	Si	175J	TO18	
21	2N3511	450M§△	10n	8.0n	12n	8.0n	360m	1.0 Ø	150mØ	120 ☑	2.6	4.0p☑		N	Si	200	TO52	AØ
22	2N3648	450M§△	10n	8.0n	12n	8.0n	400m	1.0 Ø	150mØ	30 △		4.0p☑		N	Si	200	TO46	AØ
23	2N2795	450M§	12n	12n	60n	25n	75m	.30 Ø	10mØ	100	12.	2.5p		P-D	Ge	100S	TO18	A
24	2N2796	450M§	15n	15n	75n	25n	75m	.30 Ø	10mØ	60	15	2.5p		P-D	Ge	100S	TO18	A
25	2N3303	450M§△	15nØ			25nØ	600m	.50 Ø	300mØ	60 #	2.3	15p☑		N	Si	200J	R83a	
26	2N5455	450M§△	15n	15n	25n	15n	340m	1.0 Ø	300mØ	25 △#		6p$☑		P	Si	200J	TO52	AØ
27	2N5456	450M§△	15n	15n	25n	15n	340m	1.0 Ø	300mØ	25 △#		6p$☑		P	Si	200J	TO52	AØ
28#	BSX12	450M§△	15nØ	15n$		25nØ	3.0 Ø	500mØ	10mØ	20 #△		25p☑		N-DPE	Si	200J	R113	Ø
29	2N779A	450M§	18n	50n$		18n	60m	500mØ	50m	85 †	12	1.4p		P-MD	Ge	100S	TO18	A
30	2N846A	450M§	18n	50n		18n	60m	500mØ	50m	35	14	1.9p		P-MD	Ge	100S	TO18	A
31	2N982	450M§	18n			18n	60m	500mØ	10m	100	9.0	1.9p		P-MD	Ge	100S	TO18	A
32	2N983	450M§	18n			18n	60m	500mØ	10m	85	9.0	1.9p		P-MD	Ge	100S	TO18	A
33	2N2168	450M§	18n			18n	60m	500mØ	10m	100	9.0	1.9p		P-MD	Ge	100S	TO9	A
34	2N2169	450M§	18n			18n	60m	500mØ	10m	85	9.0	1.9p		P-MD	Ge	100S	TO9	A
35	2N835	450M§	20nØ	35n$		35nØ	300m	1.0 Ø	10m	40	8.0	2.8p		N-EM	Si	175J	TO18	AØ
36	2N4035	450M§△	40n	15n	140n	40n	1.0 Ø	1.0 Ø	1.0mØ	150 △	130	3.5p$☑		P	Si	200J	TO18	AØ
37	2N4917	450M§△	40n	15n	140n	40n	200m	1.0 Ø	10mØ	150 #△		4.5p$	.05n	P	Si	125J	R124	A
38#	2SC595	450M§	100nØ			100nØ	300m	1.0 Ø	10mØ	60 †		4.0p		N-PE	Si	150J	TO18	
39	2N964A	460M§	50nØ			85nØ	150m	1.0 Ø	100mØ	40 △		2.2p		P-EM	Ge	100J	TO18	A
40#	BSX59	475M§	35nØ			60nØ	800m	1.0 Ø	150mØ	70 ☑	2.0	10p☑		N-PE	Si	200J	TO5	AØ
41#	BSX60	475M§	40nØ			70nØ	800m	1.0 Ø	150mØ	100 ☑	2.0	10p☑		N-PE	Si	200J	TO5	AØ
42#	BSX61	475M§	50nØ			100nØ	800m	1.0 Ø	150mØ	110 ☑	3.3	10p☑		N-PE	Si	200J	TO5	AØ
43	2N708	480M△	40nØ		75nØ		360m	1.0 Ø	10mØ	30 △	40			N-PL	Si	200S	TO18	A
44	2N914	480M△	40nØ	20n$		40nØ	360m	1.0 Ø	10mØ	30 #△	3.5	4.5p		N	Si	200J	R64	Ø
45	2N4137	500M§△	6.0n	9.0n	12n	8.0n	360m	1.0 Ø	10mØ	120 #☑		4.0p$		N-DPE	Si	200S	TO18	AØ
46	2N743A	500M§△	12nØ		10n	30nØ	360m	350mØ	10mØ	60 ☑	35	3.0p☑		N-PE	Si	200J	TO18	A
47	2N744A	500M§△	12nØ		13n	30nØ	360m	350mØ	10mØ	120 ☑	35	3.0p☑		N-PE	Si	200J	TO18	A
48	2N2369A	500M§△	12nØ	13n$		18nØ	1.2 Ø	1.0 Ø	10mØ	120 #☑	20	4.0p☑		N-PE	Si	120S	TO18	AØ
49	JAN2N2369A	500M§△	12nØ		13n	18nØ	1.2 Ø	1.0 Ø	10mØ	120 #☑	20	4.0p☑		N	Si	200J	TO18	AØ
50	2N4295	500M§△	12n	9.0n	15n	15n	200m	1.0 Ø	10mØ	40 △	25	4.0p☑		N	Si	150	u29	
51	2N4418	500M§△	12n	10n	12n	14n	500mØ	1.0 Ø	10mØ	120 #☑	25	4p$☑		N†	Si	150S	X55	A
52	JAN2N4449	500M§△	12nØ		13n	18nØ	1.5 Ø	1.0 Ø	10mØ	120 #☑	20	4.0p☑		N	Si	200J	TO46	AØ
53#	2SC601	500M§△	12nØ			18nØ	300m	1.0 Ø	10mØ	40 †△		2.4p		N-PE	Si	175J	TO18	
54#	BFV28	500M§△	12nØ		6.0n	12nØ	150m	.40 Ø	30mØ	15 †△#		3.0p☑		NPE	Si	200J	u34b	P
55#	BFV87A	500M§△	12nØ		13n	18nØ	300m	2.0 Ø	100mØ	20 #△	25	4.0p☑		NPE	Si	200J	u26a	B
56#	BFV87B	500M§△	12nØ		13n	18nØ	300m	.40 Ø	30mØ	30 #△	.02	4.0p☑		NPE	Si	200J	u26a	B
57▼#	BSV35	500M§△	12nØ		13n	18nØ	350m	1.0 Ø	10mØ	120 ☑	24	4.0p☑		P	Si	175J	u53	F
58▼	BSV52	500M†	12n		13n	18n	110m	1.0 Ø	1.0mØ	25 △		4.0p$☑		N	Si	125J		
59#	BSW59	500M§△	12nØ		12n	25nØ	125m#	2.0 Ø	100mØ	30 △	30	4.0p$☑		N-PE	Si	125J	MM13	F
60#	BSX20	500M§△	12nØ		13n	21nØ	360m	1.0 Ø	10mØ	120 ☑	30	4.0p$☑		N-PE	Si	200J	TO18	AØ
61	EN2369A	500M§△	12nØ	13n$		18nØ	500mØ	1.0 Ø	10mØ	120 #☑		4.0p☑		N-DPE	Si	125J	TO106	A
62#	FT1315	500M§△	12nØ			18nØ	360m	500mØ	50mØ	40 #△	3.0	4.0p☑		N-PE	Si	200S	TO18	AØ
63▼	MD1T2369	500M§	12nØ		13n	18nØ	360m	1.0 Ø	10mØ	40 #△	25	4.0p☑		N	Si	150A	TO122	P
64	MMT2369	500M§△	12nØ			18nØ	225m	1.0 Ø	10mØ	40 #△		4.0p☑		N-AN	Si	135J	u43	D
65	MPS2369	500M§△	12nØ		13n	18nØ	310m	2.0 Ø	100mØ	20 #△		4.0p☑		N-AN	Si	135J	TO92	A
66#	PL4022	500M§△	12nØ		13n	18nØ	150m	1.0 Ø	10mØ	120 ☑	25	4.0p☑		N-PE	Si	175S	u51	
67#	PL4023	500M§△	12nØ		13n	18nØ	150m	1.0 Ø	10mØ	120 #☑	20	4.0p☑		N-PE	Si	175S	u51	
68#	TIS48	500M§△	12nØ		18n	23nØ	360m	1.0 Ø	10mØ	40 #△	25	4.0p☑		N-PE	Si	150J	TO92	
69#	TIS49	500M§△	12nØ		18n	23nØ	360m	1.0 Ø	10mØ	120 #☑	5.0	4.0p☑		N-PE	Si	150J	TO92	
70#	ZT2369	500M§△	12nØ	12nØ	18nØ	18nØ	360m	1.0 Ø	10mØ	40 △		4.0p☑		N-PL	Si	200	TO18	
71#	ZT2369A	500M§△	12nØ	12nØ	18nØ	18nØ	300m	1.0 Ø	10mØ	40 △		4.0p☑		N-PL	Si	200	TO18	
72♦#	ZTX313	500M§△	12nØ		13n	18nØ	300m	1.0 Ø	10mØ	120 ☑	24	4.0p☑		N-PL†	Si	125A	X59	F
73♦#	ZTX314	500M§△	12nØ		13n	18nØ	300m	1.0 Ø	10mØ	120 ☑	20	4.0p☑		N-PL†	Si	125A	X59	F
74	2N4257	500M§△	15n		15n	10n	500mØ	.50 Ø	1.0mØ	15 △	15	3p$☑		P	Si	125J	R110	A
75#	BFV27	500M§△	15nØ		8.0n	20nØ	150m	.50 Ø	10mØ	20 †△#	133	3.0p☑		NPE	Si	200J	u34b	P
76#	ME0492	500M§△	15n	10n	20n	15n	250m	1.0 Ø	30mØ	50 △#		4.0p☑		P-PE	Si	150	R110	A
77	2N834	500M§	16nØ	25n$		30nØ	300m	1.0 Ø	10m	40	8.0	2.8p		N-EM	Si	175J	TO18	AØ
78	2N834A	500M§△	16nØ		10n	24nØ	360m	1.0 Ø	10mØ	25 #	25	4.0p☑		N	Si	200J	TO18	AØ
79	2N3227	500M§△	18n	5.0n	13n	15n	1.2 Ø	1.0 Ø	10mØ	300 #☑		4.0p☑		N	Si	200J	TO18	AØ
80	2N3508	500M§△	18n	5.0n	13n	15n	400m	1.0 Ø	10mØ	120 #☑	14	4.0p☑		N	Si	200S	TO46	AØ
81	2N3509	500M§△	18n	5.0n	13n	15n	400m	1.0 Ø	10mØ	300 #☑	25	4.0p☑		N	Si	200S	TO46	AØ
82	2N5272	500M§△	18n	5.0n	13n	15n	360m	1.0 Ø	100mØ	30 △#		4p$☑		N	Si	200S	TO18	AØ
83	2N2710	500M§△	20nØ			35nØ	360m	1.0 Ø	10mØ	40 #△	8.0	4.0p☑		N	Si	200	TO18	AØ
84	2N3639	500M§△	20n	10n	20n	12n	500mØ	.30 Ø	10mØ	30 △#		3.5p☑		P	Si	125J	R110	A
85	2N3640	500M§△	20n	10n	20n	12n	500mØ	.30 Ø	10mØ	30 △#		3.5p☑		P	Si	125J	R110	A
86	2SA413	500M§	20n	30n	40n	40n	100m	1.0 Ø	30mØ	70				P-AD	Ge	75J	TO18	
87	TIS53	500M§△	20n	10n	20n	12n	360m	300mØ	10mØ	30 #△	16	3.5p☑		P-PE	Si	150J	TO92	
88	TIS54	500M§△	20n	10n	20n	12n	360m	300mØ	10mØ	30 #△	20	3.5p☑		P-PE	Si	150J	TO92	
89	JAN2N3467	500M§☑	30n	10n	60n	30n	5.0 Ø	5.0 Ø	1.0mØ	40 △	1.2	25p☑		P	Si	200S	TO5	AØ
90	JAN2N3468	500M§☑	30n	10n	60n	30n	5.0 Ø	5.0 Ø	1.0mØ	25 △	1.2	25p☑		P	Si	200S	TO5	AØ
91	MPS3640	500M§△	30n	10n	20n	12n	310m	1.0 Ø	50mØ	20 △#	20	3.5p☑		PAN	Si	135J	X20d	A
92#	ZT2938	500M§△	30nØ		15n	30nØ	300m	1.0 Ø	200m	60 #☑	8.0	4.0p☑		N-PE	Si	175J	TO18	Ø
93	JAN2N3253	500M§☑	35n	15n	40n	30n	5.0 Ø	5.0 Ø	1.0mØ	20 △	1.2	12p☑		N-E	Si	200S	TO5	AØ
94	JAN2N3444	500M§☑	35n	15n	40n	30n	5.0 Ø	5.0 Ø	1.0mØ	15 △	1.2	12p☑		N-E	Si	200S	TO5	AØ
95▼	JAN2N5581	500M§☑	35nØ			300nØ	2.0 Ø	10 Ø	10mØ	40 △		8.0p☑		N	Si	200J	TO46	AØ
96▼	JAN2N5582	500M§☑	35nØ			300nØ	2.0 Ø	10 Ø	10mØ	100 △		8.0p☑		N	Si	200J	TO46	AØ
97	2N3304	500M§△	60nØ			60nØ	300m	.30 Ø	10mØ	63	10	3.5p☑		P	Si	200J	TO18	AØ
98	2N4449	500M§△	60n	9.0n	12n	8.0n	300m	.35 Ø	10mØ	40 #△		4p$☑		N	Si	200S	TO46	A
99	FT1702	500M§△	60nØ			75nØ	500mØ	300mØ	10mØ	30 #△	20	3.5p☑		P-PE	Si	200J	TO18	AØ
100#	ME0493	500M§△	60nØ			90nØ	250m	1.0 Ø	30mØ	30 △#		6.0p☑		P-PE	Si	150	R110	A
101	2N4028	500M§☑	100nØ		350n	50n	2.0 Ø	5.0 Ø	500mØ	70 #△	1.0	20p$☑		P	Si	200J	TO18	AØ
102	2N4029	500M§☑	100nØ		350n	50n	2.0 Ø	5.0 Ø	500mØ	70 #△	1.0	20p$☑		P	Si	200J	TO18	AØ
103	2N4032	500M§☑	100nØ		350n	50n	4.0 Ø	5.0 Ø	500mØ	70 #△	1.0	20p$☑		P	Si	200J	TO5	AØ
104	2N4033	500M§☑	100nØ		350n	50n	4.0 Ø	5.0 Ø	500mØ	70 #△	1.0	20p$☑		P	Si	200J	TO5	AØ
105	FT4354	500M§☑	100nØ			400nØ	4.0 Ø	10 Ø	1.0mØ	120 #		30p$☑		P-DPEØ	Si	125J	TO105	A
106	FT4355	500M§☑	100nØ			400nØ	4.0 Ø	10 Ø	1.0mØ	200 #		30p$☑		P-DPEØ	Si	125J	TO105	A
107	FT4356	500M§☑	100nØ			400nØ	4.0 Ø	10 Ø	1.0mØ	180 #		30p$☑		P-DPEØ	Si	125J	TO105	A
108	2N4896	500M§△	140n	60n	600n	350n	4.0 Ø	2.0 Ø	2.0mØ	40 △	.20	80p☑		N	Si	200J	TO39	AØ
109	2N4897	500M§△	140n	60n	600n	350n	4.0 Ø	2.0 Ø	2.0mØ	40 △	.20	80p☑		N	Si	200J	TO39	AØ
110#	2SA450H	530M§	13n†	12n†	14n†	24n†	300mØ	1.0 Ø	50mØ	30 △		4.0p☑		P-EM	Ge	100J	TO18	AØ

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	[3] TYPE No.	[1] fab (Hz)	[2] MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	DESCRIPTION MAT	DESCRIPTION MAX. TEMP (°C)	DWG. No.	LEAD CONFIG.
1#	2SA451H	530M§	13n†	12n†	14n†	24n†	300mØ	1.0 Ø	50mØ	60 Δ		4.0p☑		P-EM	Ge	100J	TO18	AØ
2#	2SA452H	530M§	13n†	12n†	14n†	24n†	300mØ	1.0 Ø	50mØ	120 Δ		4.0p☑		P-EM	Ge	100J	TO18	AØ
3	2N5065	550M§Δ	12n	7.0n	25n	15n	2.5 Ø	.50 Ø	300mØ	120 ☑	2.3			N#	Si	200J	R83a	AØ
4#	BSX92	550M§	12nØ			15nØ	360m	1.0 Ø	10mØ	20 Δ#		4.0p☑		NPE	Si	200J	TO18	AØ
5	2N5055	550M§Δ	15n	10n	20n	15n	500mØ	.50 Ø	30mØ	100 #☑	13	4.5p$		P	Si	125J	R124	A
6#	2SC689H	600M§Δ			3.0n		300m	1.0 Ø	10mØ	85		1.8p		N	Si	175J	TO18	
7	LDS205	600M			6.0n		360m	1.0 Ø	10mØ	70		3.0p		N	Si	150J	TO122	P
8	2N3320	600M§Δ	10n	10n	20n	15n	60m	.50 Ø	40mØ	40 Δ		3.0p☑		P	Ge	100S	TO18	A
9	2N3321	600M§Δ	10n	10n	25n	15n	60m	.50 Ø	40mØ	80 †Δ		3.5p☑		P	Ge	100S	TO18	A
10	2N3322	600M§Δ	10n	10n	30n	15n	60m	.50 Ø	40mØ	25 †Δ		3.5p☑		P	Ge	100S	TO18	A
11	2N3010	600M§Δ	12nØ	6.0n$	12nØ		300m	.40 Ø	10mØ	25 #Δ		3.0p☑		N	Si	200J	TO18	AØ
12#	BSX27	600M§Δ	12nØ	6.0n$		12nØ	300m	400mØ	30mØ	60 #		3.0p		N-DPE	Si	200J	TO18	Ø
13	2N5056	600M§Δ	15n	10n	30n	15n	1.2 Ø	.50 Ø	30mØ	100 #☑	13	4.5p$		P	Si	200J	TO18	AØ
14	FT709	600M§Δ	15nØ		6.0n	15nØ	300m	400mØ	10mØ	30 Δ	15	3.0p☑		N-PE	Si	200J	TO18	AØ
15#	ZT709	600M§Δ	15nØ		6.0n	15nØ	300m	1.0 Ø	30mØ	45		2.1p		N-PL	Si	200J	TO18	Ø
16▼#	BSV36	600M§Δ	20nØ		6.0n	15nØ	350m	400mØ	20mØ	150 ☑	25	3.0p☑		P	Si	175J	u53	F
17#	ZT2475	600M§Δ	20nØ		6.0n	9.0n	300m	400mØ	20mØ	50		2.4p		N-PE	Si	200	R66	
18	2N2651	600M§	35nØ		25n	75nØ	360m	1.0 Ø	10mØ	50		2.6p		N-PE	Si	300	TO18	A
19	JAN2N3763	600M§☑	35n	8.0n	80n	35n	1.0	1.0 Ø	500mØ	40 #Δ	10	15p☑		P	Si	200J	TO5	AØ
20	JAN2N3765	600M§☑	35n	8.0n	80n	35n	500m	1.0 Ø	500mØ	40 #Δ	10	15p☑		P	Si	200J	TO46	AØ
21	2N3862	600M§Δ	39n	39n	25n	25n	360m	1.0 Ø	10mØ	50 #Δ	25	4.0p☑		N	Si	200A	TO18	AØ
22	JAN2N914	600M☑	40nØ		20n	40nØ	1.2 Ø	5.0 Ø	500mØ	10 #Δ	30	6.0p☑		N	Si	200J	TO18	A
23	JAN2N3735	600M§☑	40n	8.0n	30n	30n	1.0	1.0 Ø	500mØ	40 #Δ	20	9.0p☑		N	Si	200J	TO5	AØ
24	JAN2N3737	600M§☑	40n	8.0n	30n	30n	500m	1.0 Ø	500mØ	40 #Δ	20	9.0p☑		N	Si	200J	TO46	AØ
25	SE6020	600M§☑	150nØ			1.0uØ	800mØ	10 Ø	100uØ	60		15p$☑		N-DPE	Si	125J	TO105	A
26	SE6020A	600M§☑	150nØ			1.0uØ	4.0 Ø	10 Ø	100uØ	60		15p$☑		N-DPE	Si	125J	TO105	A
27	SE6021	600M§☑	150nØ			1.0uØ	800mØ	10 Ø	100uØ	70		15p$☑		N-DPE	Si	125J	TO105	A
28	SE6021A	600M§☑	150nØ			1.0uØ	4.0 Ø	10 Ø	100uØ	70		15p$☑		N-DPE	Si	125J	TO105	A
29	SE6022	600M§☑	150nØ			1.0uØ	600mØ	10 Ø	100uØ	60		15p$☑		N-DPE	Si	125J	TO106	A
30	SE6023	600M§☑	150nØ			1.0uØ	600mØ	10 Ø	100uØ	70		15p$☑		N-DPE	Si	125J	TO106	A
31	2N2368	640MΔ	12nØ	10n$		15nØ	360m	1.0 Ø	10mØ	40		4.0p☑		N-PE	Si	200J	TO18	AØ
32	2N869A	640MΔ	50nØ			80nØ	360m	500mØ	30mØ	40 #Δ	6.7	6.0p☑		P-PE	Si	200J	TO18	AØ
33#	BSX93	650M§	12nØ			18nØ	360m	1.0 Ø	10mØ	40 Δ#		4.0p☑		NPE	Si	200J	TO18	AØ
34	2N4207	650M§Δ	15n	10n	15n	10n	300m	.30 Ø	10mØ	120 ☑	130	3.0p		P	Si	200J	TO18	AØ
35	2N4873	700M§Δ	10n	10n	15n	15n	1.2 Ø	1.0 Ø	10mØ	110 #Δ		4.0p☑		N	Si	200J	TO18	AØ
36	2N3546	700M§Δ	15n	10n	20n	15n	360m	1.0 Ø	10mØ	120 #☑	5.0	6.0p☑		P	Si	200J	TO18	AØ
37	2N4208	700M§Δ	15n	10n	20n	10n	300m	.30 Ø	10mØ	120 ☑	130	3.0p		P	Si	200J	TO18	AØ
38	2N4258	700M§Δ	15n		20n	10n	500mØ	.50 Ø	1.0mØ	15 Δ	15	3p$☑		P	Si	125J	R110	A
39	2N4313	700M§Δ	15n	10n	20n	15n	200m	500mØ	30mØ	120 Δ#		4.5p$		P	Si	125J	R124	A
40	MMT3546	700M§Δ	15n	10n	20n	15n	225m	1.0 Ø	100mØ	15 #Δ		6.0p☑		PAN	Si	135J	u43	C
41#	2SC639	750M§	12nØ		13n	18nØ	360m	1.0 Ø	10mØ	80		1.5p		N-PE	Si	200J	TO18	
42	2N706A	750M	40nØ			75nØ	300m	1.0 Ø	10m	80 †	60	3.5p		N-ME	Si	175J	TO18	AØ
43	2N753	750M	40nØ			75nØ	300m	1.0 Ø	10m	80	60	3.5p		N-ME	Si	175J	TO18	AØ
44	2N2475	800M§	7.3nØ			9.0nØ	300m	400mØ	20m	50	20	2.4p		N-PE	Si	200J	R64	
45	2N2369	800MΔ	12nØ	13n$		18nØ	360m	1.0 Ø	10mØ	80		4.0p☑		N-PE	Si	200J	TO18	AØ
46	2N709	800M§	15nØ			15nØ	300m	500mØ	10mØ	55	100	3.0p☑		N-PL	Si	200J	TO18	AØ
47	2N709A	800M§	15nØ			15nØ	300m	500mØ	10mØ	60	100	3.0p☑		N-PE	Si	200J	TO18	AØ
48	2N5057	800M§Δ	15n	10n	30n	15n	1.2 Ø	.50 Ø	30mØ	100 #☑	13	4.5p$		P	Si	200J	TO18	AØ
49	2N3832	800M§Δ	20n	15n	10n	20n	200m	.50 Ø	2.0mØ	25 Δ	40			N	Si	200S	TO72	G
50#	BSW25	800M§Δ	20nØ			25nØ	1.2 Ø	500mØ	30mØ	40 #Δ		4.5p☑		P-DPE	Si	200J	TO18	AØ
51	EN2894A	800M§Δ	20nØ		25nØ		200m	.50 Ø	30mØ	120 #☑		4.5p☑		P	Si	125J	TO106	A
52	2N2894A	800M§Δ	60nØ		20n	20nØ	360m	500mØ	30mØ	120 #☑	4.5	4.5p		P	Si	200J	TO18	Ø
53	JAN2N3498	800M§☑	115nØ			900nØ	5.0 Ø	10 Ø	100uØ	20 #Δ		10p☑		N	Si	200J	TO5	AØ
54	JAN2N3499	800M§☑	115nØ			900nØ	5.0 Ø	10 Ø	100uØ	35 #Δ		10p☑		N	Si	200J	TO5	AØ
55	JAN2N3500	800M§☑	115nØ			900nØ	5.0 Ø	10 Ø	100uØ	20 #Δ		8.0p☑		N	Si	200J	TO5	AØ
56	JAN2N3501	800M§☑	115nØ			900nØ	5.0 Ø	10 Ø	100uØ	35 #Δ		10p☑		N	Si	200J	TO5	AØ
57	2N4895	800M§Δ	140n	60n	600n	350n	4.0 Ø	2.0 Ø	2.0mØ	100 Δ	.20	80p☑		N	Si	200J	TO39	AØ
58	JAN2N3634	800M§☑	400nØ			600nØ	5.0 Ø	10 Ø	100uØ	40 #Δ		10p☑		P	Si	200J	TO5	AØ
59	JAN2N3636	800M§☑	400nØ			600nØ	5.0 Ø	10 Ø	100uØ	40 #Δ		10p☑		P	Si	200J	TO5	AØ
60	2N3919	800M§Δ	500nØ		1u		15m§Ø	2.0 Ø	2 Ø	40 #Δ				N	Si	150J	TO3	CØ
61	2N3920	800M§Δ	500nØ		1u		15m§Ø	2.0 Ø	2 Ø	100 #Δ				N	Si	150J	TO3	CØ
62	2N5490	800M§Δ	5000nØ			15uØ	50 Ø	4.0 Ø	2.0 Ø	20 #Δ				N	Si	150J	X75	DØ
63	2N5491	800M§Δ	5000nØ			15uØ	50 Ø	4.0 Ø	2.0 Ø	20 #Δ				N	Si	150J	X75a	TØ
64	2N5492	800M§Δ	5000nØ			15uØ	50 Ø	4.0 Ø	2.5 Ø	20 #Δ				N	Si	150J	X75	DØ
65	2N5493	800M§Δ	5000nØ			15uØ	50 Ø	4.0 Ø	2.5 Ø	20 #Δ				N	Si	150J	X75a	TØ
66	2N5494	800M§Δ	5000nØ			15uØ	50 Ø	4.0 Ø	3.0 Ø	20 #Δ				N	Si	150J	X75	DØ
67	2N5495	800M§Δ	5000nØ			15uØ	50 Ø	4.0 Ø	3.0 Ø	20 #Δ				N	Si	150J	X75a	TØ
68	2N5496	800M§Δ	5000nØ			15uØ	50 Ø	4.0 Ø	3.5 Ø	20 #Δ				N	Si	150J	X75	DØ
69	2N5497	800M§Δ	5000nØ			15uØ	50 Ø	4.0 Ø	3.5 Ø	20 #Δ				N	Si	150J	X75a	TØ
70	2N4209	850M§Δ	15n	10n	20n	10n	300m	.30 Ø	10mØ	120 ☑	150	3.0p		P	Si	200J	TO18	AØ
71	JAN2N3635	850M§☑	400nØ			600nØ	5.0 Ø	10 Ø	100uØ	80 #Δ		10p☑		P	Si	200J	TO5	AØ
72	JAN2N3637	850M§☑	400nØ			600nØ	5.0 Ø	10 Ø	100uØ	80 #Δ		10p☑		P	Si	200J	TO5	AØ
73	2N4872	900M§Δ	15n	10n	20n	10n	700m	.30 Ø	10mØ	50 #Δ	130	3.0p☑		P	Si	200J	TO18	AØ
74	2N769	900M§	30n$				35m	500mØ	20m	55	24	1.5p		P-MD	Ge	100J	TO18	A
75	JAN2N3250A	900M§☑	35n	35n	175n	50n	1.2 Ø	1.0 Ø	10mØ	50 #Δ	25	6.0p☑		PØ	Si	200S	TO18	AØ
76	JAN2N3251A	900M§☑	35n	35n	200n	50n	1.2 Ø	1.0 Ø	10mØ	100 #Δ	25	6.0p☑		PØ	Si	200S	TO18	AØ
77	2N2784	1000M§	9.0nØ		5.0n	9.0nØ	300m	500mØ	10mØ	40 Δ	87	3.0p☑		N-PE	Si	200J	TO18	AØ
78	2N2784/46	1000M§	9.0nØ		5.0n	9.0nØ	400m	500mØ	10mØ	40 Δ	87	3.0p☑		N-PE	Si	200J	TO46	
79	2N709A46	1.0G§	15nØ			15nØ	400m	500mØ	10mØ	60	100	3.0p☑		NPE	Si	200J	TO46	
80▼	MPSL07	1.0G§	20nØ	15n$		40nØ	310m	1.0 Ø	50mØ	35	15	1.9p		P-AN	Si	135J	TO92	A
81	2N797	1000M§	40nØ			80nØ	150m	500mØ	50m	85	14	4.0p$☑		N-ME	Ge	100	TO18	AØ
82	JAN2N869A	1000M§☑	50nØ			80nØ	360m	5.0 Ø	10 Ø	120 #☑	15	6.0p☑		PØ	Si	200J	TO18	AØ
83	JAN2N4453	1000M§☑	50nØ			80nØ	300m	5.0 Ø	10 Ø	120 #☑	15	6.0p☑		PØ	Si	200J	TO46	AØ
84	JAN2N559	1000M§☑	95n	50nØ	95n	100n	300mØ	500mØ	10mØ	120 †☑		6.0p☑		P	Ge	150S	TO18	AØ
85▼	MPSL08	1.2G	20nØ	20n$		40nØ	310m	1.0 Ø	50mØ	35	15	1.9p		P-AN	Si	135J	TO92	A
86	2N709/46	1280M	15nØ			15nØ	400m	500mØ	10mØ	55	100	3.0p☑		N-PL	Si	200J	TO46	
87	2N3959	1300M§Δ	2.0nØ			1.6nØ	400m	1.0 Ø	10mØ	40 Δ	200	2.5p		N-A	Si	200J	TO18	A
88	2N4251	1300M§Δ	4.0n	16n	52n	8.0n	1.3 Ø	5.0 Ø	1.0mØ	62 Δ		2.0p☑		N	Si	200J	TO46	AØ
89	2N3633	1300M§Δ	9.0nØ		5.0n	9.0nØ	300m	500mØ	10mØ	150 ☑	70	2.5p☑		N-PE	Si	200J	TO18	AØ
90	2N3960	1600M§Δ	2.0nØ			1.6nØ	400m	1.0 Ø	10mØ	40 Δ	200	2.5p		N-A	Si	200J	TO18	A
91#	2SC989	3000M§	700pt Ø			500pØ†	150m	1.0 Ø	30mØ	30 #Δ		1.5p☑		N-PE	Si	150J	X79	C☑

13. MISCELLANEOUS TRANSISTORS

LINE No.	2 TYPE No.	1 CATEGORY USE	STRUCTURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1	2N5236*		N		TO39	AØ	Max.Rad.Level-300T NVT;hFE-10 min;VCE(sat)-.70 max;all pulsed.
2	2N3033	1	N	Si	TO18	AØ	Pt-300mW;BVCBO-160V max;IC-10A peak;tr-2nsec max;td-3nsec max.
3	2N3034	1	N	Si	TO18	AØ	Pt-300mW;BVCBO-120V max;IC-10A peak;tr-2nsec max;td-3nsec max.
4	2N3035	1	N	Si	TO18	AØ	Pt-300mW;BVCBO-90V max;IC-10A peak;tr-2nsec max;td-3nsec max.
5	2N5271†	1	N	Si	TO39	AØ	Pt-.60W;BVCER-280Vmax;ICER-20nAmax;ICER(H)-.5mA min.
6#	ASZ23	1	P-AD	Ge	TO7		IC-100mA max;ICBO-2.0uA;Pc-83mW;BVEBO-2.0V;tr-1.0ns
7	NS1110†	1	N	Si	TO18	AØ	ICBO-1.0uA max;Ih-300mA;VH-9.0V;IA-2.0mA;Ip-2.0A;BVCES-110V min.
8	NS1111†	1	N	Si	TO18	AØ	ICBO-1.0uA max;Ih-300mA;VH-9.0V;IA-2.0mA;Ip-1.5A;BVCES-60V min.
9	NS1112	1	N	Si	TO18	AØ	Pt-300 min;BVCBO-150V;Ic-10A peak;tr-1ns max;td-5ns max.
10	NS2310	1	N	Si	TO18	AØ	Pt-300 min;BVCBO-120V min;Ic-10A peak;tr-2ns max;td-5ns max.
11	NS2311	1	N	Si	TO18	AØ	Pt-300 min;BVCBO-120V;Ic-10A peak;tr-2ns max;td-5ns max.
12#	RT1110	1	N-PL	Si	TO18	AØ	BVCES-190V max;ICBO-1.0uA max;tr-1.0ns max;tf-2.5ns max.
13#	RT1111	1	N-PL	Si	TO18	AØ	BVCES-120V max;ICBO-1.0uA max;tr-1.0ns max;tf-2.5ns max.
14#	RT1116	1	N-PL	Si	TO18	AØ	BVCES-280V max;ICBO-1.0uA max;tr-1.0ns max;tf-2.5ns max.
15	2N594	2	N	Ge	TO5	A§	Pc-.15W max;BVCBO-20V;IC-.30A max;f-1.5Mc min.
16	2N595	2	N	Ge	TO5	A§	Pc-.15W max;BVCBO-20V;IC-.30A max;fab-3.0Mc min.
17	2N596	2	N	Ge	TO5	A§	Pc-.15W max;BVCBO-20V;IC-.30A max;fab-5.0Mc min.
18	2N1169	2	N	Ge	TO5	A	Pc-.12W max; BVCBO-25V; IC-.40A max;tr-350ns;tf-200ns;fab-7.0Mc.
19	2N1170	2	N	Ge	TO5	A	Pc-.12W max; BVCBO-40V; IC-.40A max;tr-350ns;tf-200ns;fab-7.0Mc.
20	2N1640	2	P⍁△	Si	TO5	A	Pc-.25Wmax;BVCBO-30V;IC-50mAmax;fab-.40Mc typ.
21	2N1641	2	P-⍁△	Si	TO5	A	Pc-.25W max;BVCBO-30V;IC-50mA max;fab-.80Mc Typ.
22	2N1642	2	P-⍁△	Si	TO5	A	Pc-.25W max;BVCBO-30V;IC-50mA max;fab-1.2Mc Typ.
23	2N1891*	2	N	Ge	TO5	A§	Pc-150mW;VEBO-25V max;VCBO-25V max;fab-5.0Mc min.
24	2N1994	2	N-A	Ge	TO5	A§	Pc-.15W max;BVCBO-30V;IC-.30A max;ton-1500ns;toff-1800ns;fab-3Mc
25	2N1995	2	N-A	Ge	TO5	A§	Pc-.15W max;BVCBO-25V;IC-.30A max;ton-1300ns;toff-1800ns;fab-5Mc
26	2N1996	2	N-A	Ge	TO5	A§	Pc-.15W max;BVCBO-20V;IC-.30A max;ton-1100ns;toff-1800ns;fab-8Mc
27	2N2474	2	P-⍁	Si	TO5	A	Pc-.25W max;BVCBO-30V;BVEBO-30V;BVCEO-15V;hFE-15;VO-6mV max.
28	2N2968	2	P-PA	Si	TO5	A	Pd-150mW max;hFE-15 at 100uA;BVCEO-30V; IC-50mA max.
29	2N2969	2	P-PA	Si	TO18	A	Pd-150mW max;hFE-15 at 100uA;BVCEO-30V; IC-50mA max.
30	2N2970	2	P-PA	Si	TO5	A	Pd-150mW max;hFE-10 at 100uA;BVCEO-20V; IC-50mA max.
31	2N2971	2	P-PA	Si	TO18	A	Pd-150mW max;hFE-10 at 100uA;BVCEO-20V; IC-50mA max.
32#	AC130	2	N-A	Ge	TO1		Pc-.14W max; BVCBO-20V; IC-.1A max; fab-2.0Mc.
33	C106*	2	P	Si	TO5	AØ	VO-2.0mV max;hFE-30 min at VCE-.50V;RCE(SAT)-4.0 ohms max.
34	C201	2	P-△	Si	TO5		Pc-.25W max;BVCBO-40V;IC-50mA max;fab-.40Mc.
35	C202	2	P-△	Si	TO5		Pc-.25W max;BVCBO-25V;IC-50mA max;fab-.80Mc.
36	C301	2	P-△	Si	TO5		Pc-.25W max;BVCBO-70V;IC-50mA max;fab-.40Mc.
37	C302	2	P-△	Si	TO5		Pc-.25W max;BVCBO-12V;IC-50mA max;fab-.80Mc.
38	C401	2	P-△	Si	TO5		Pc-.25W max;BVCBO-40V;IC-50mA max;fab-.40Mc.
39	C402	2	P-△	Si	TO5		Pc-.25W max;BVCBO-15V;IC-50mA max;fab-.80Mc.
40	C502	2	P-△	Si	TO5		Pc-.25W; BVCBO-30V; IC-50mA; BVCEO-10V.
41	2N2707	5		Ge	TO1	A	Matched pair of 2N2430 and 2N2706; hFE1/2-1.1 max.
42	2N3838†	5	△	Si	L19c		Pt-.35W;BVCBO-60V;hFE-35 min;ft-200Mc min;tr-40ns;tf-90ns.
43	2N4079	5	P	Ge	TO1	CØ	2N4077/2N4078,hFE1/hFE2-1.25 at VCB-.0V; IE-500mA.
44	2N4107	5	P	Ge	TO1	A	2N4105/2N4106,hFE1/hFE2-1.25 at VCB-.0V;IE-500mA.
45	2N4136	5		Ge	TO1	A	Pair of 2N2430 and 2N2431;hFE1/hFE2-1.4 at VCB-0.0V and IE-300mA.
46	2N4854†	5		Si	L19b		Pc-.30W each;VC1-2-120V max;BVCBO-60V max;IC-600mA;BVCEO-40V max.
47	2N4855†	5		Si	L19b		Pc-.30W each;VC1-2-120V max;BVCBO-60V max;IC-600mA;BVCEO-40V max.
48#	2SD43	5	A	Ge	TO1		fab-1.0Mc; BVCBO-25V; IC-.05A max; hFE-70 at IC-.05A
49	40396	5	N-P	Ge	TO1	A	Pt-.30W(each);VCBO-18V max;VEBO-2.5V max.
50	AC127/AC128	5		Ge	TO1		Matched pair of AC127 and AC128
51	AC127/AC132	5		Ge	TO1		Matched pair of AC127 and AC132
52#	AC127/AC152	5		Ge	TO1		BVCBO-32V; IC-500mA; hFE1/2-1.25
53#	AC187/01/AC188/01	5	A	Ge	X9c	A	hFE1/2-.89 min; BVCBO-25V; IC peak-2A.
54#	AC187/AC188	5	A	Ge	TO1	A	hFE1/2-.89 min; BVCBO-25V; IC peak-2A.
55#	AD161/AD162	5		Ge	MD6b		BVCBO-32V;IC-2.0A;ft-1.0Mc;Pd-3.0W;hFE-.40min;hFE1/2-1.25max.
56#	BFX79	5	DPE	Si	L19		BVBCO-80V;BVCEO-60V;Pt-600mW;ft-100Mc;hFE-100 at IC-500mA.
57#	BFX80	5	DPL	Si	L19		BVBCO-60V;BVCEO-60V;Pt-500mW;ft-40Mc min;hFE-200 at IC-.01mA.
58#	BFX81	5	DPE	Si	L19		BVBCO-25V;BVCEO-20V;Pt-500mW;ft-350Mc min;hFE-30 min at IC-10mA.
59	FP4339/2N4339	5	P-N	Si	ZA25		Vp match-30%;IDSS match-5%;BVGSS-40V max;Pc-.30W max.
60	FP4340/2N4340	5	P-N	Si	ZA25		Vp match-30%;IDSS match-5%;BVGSS-50V max;Pc-.30W max.
61	FT3838†	5	PE	Si	TO89		BVCEO-40V;Ic-600mA max;fT-200Mc;hFE-100 min. at 150mA, 10V.
62	MD985	5	E	Si	L19		VCBO-60V;VCEO-30V;Pc-500mW;ft-200Mc min;hFE-35 min. at IC-10mA.
63	MD985F	5	E	Si	X22		VCBO-60V;VCEO-30V;Pc-250mW;ft-200Mc min;hFE-35 min. at IC-10mA.
64	MD986	5	E	Si	L19		VCBO-40V;VCEO-15V;Pc-500mW;ft-200Mc min;hFE-25 min. at IC-10mA.
65	MD986F	5	E	Si	X22		VCBO-40V;VCEO-15V;Pc-250mW;ft-200Mc min;hFE-25 min. at IC-10mA.
66	MD6001†	5	P-N-EA	Si	L66		Pt-600mW(both sides);VCEO-30V;hFE-40 min,120 max. at 150mA and 10V.
67	MD6001F†	5	P-N-EA	Si	TO89		Pd(both sides)-350mW;VCEO-30V;hFE-40-120 at 150mA,10V.
68	MD6002†	5	P-N-EA	Si	L66		Pt-600mW(both sides);VCEO-30V;hFE-100 min,120 max. at 150mA and 10V.
69	MD6002F†	5	P-N-EA	Si	TO89		Pd(both sides)-350mW;VCEO-30V;hFE-100-300 at 150mA,10V.
70	MD6100	5	P-N-EA	Si	L66		Pt-600mW(both sides);VCEO-45V;hFE-100 at 100uA;5.0V.
71	TD600	5	PL†Ø	Si	L19b		Pt-400mW;hFE1/2-.90min;ft 20MHz min;IC-500mA max.
72	TD601	5	PL†	Si	L19b		Pt-400mW;ft-20MHz min;hFE at 10uA-100min;-IC-500mA max.
73	TD602	5	PL†	Si	L19b		Pt-400mW;ft-200MHz min;hFE at 1.0mA-50min;IC-500mA max.
74▼	TD700	5		Si	L19d		ft-20MHz min;hFE at IC 100uA-120 min;Ccb-10pF max;BVCEO-30V.
75▼	TD701	5		Si	L19d		ft-20MHz min;hFE at IC 100uA-120 min;Ccb-10pF max;BVCEO-30V.
76▼	TD702	5		Si	L19d		ft-200MHz min;hFE at IC 150mA-120 min;hFE at 10mA-75 min;VBCEO-30V.
77	TIS60M	5	N-PL	Si	TO92		Consist of TIS60 and TIS61;Available only with matching TIS61M.
78	TIS61M	5	P-PL	Si	TO92		Consist of TIS61 and TIS60;Available only with matching TIS60M.
79	TIS90M	5	N	Si	TO92	B	Same as TIS90, available only with matching TIS91M
80	TIS91M	5	P	Si	TO92	B	Same as TIS91, available only with matching TIS90M
81	TIS92M	5	N	Si	X55	A	Same as TIS92, available only with matching TIS93M
82	TIS93M	5	P	Si	X55	A	Same as TIS93, available only with matching TIS92M
83	UD3007†	5	PE	Si	L59		BVCBO-60V;BVCEO-40V;BVEBO-5.0V;hFE-100-300 at IC-150mA;ft-200Mc.
84#	2AC132	6	P-A	Ge	TO1		Matched Pair AC132; hFE1/hFE2-1.25 max.
85#	2AC187	6	A-N	Ge	TO1		Pt-.8W;VCBO-25V max;IC-2A pulsed;hFE-100 min;ft-5MHz.
86#	2AC188	6	P-A	Ge	TO1		Matched pair of AC188;hFE1/2-1.25 max at IC-500mA.
87#	2ACY17	6	P-AØ	Ge	TO5Ø		hFE 1/2-1.2 max;VBE(1-2)-250mV max.
88#	2ACY18	6	P-AØ	Ge	TO5Ø		hFE 1/2-1.2 max;VBE(1-2)-250mV max.
89#	2ACY19	6	P-AØ	Ge	TO5Ø		hFE 1/2-1.2 max;VBE(1-2)-250mV max.
90#	2AD139	6	P-A	Ge	MD11		Matched Pair AD139; hFE1/hFE2-1.25 max.
91#	2AD140	6	P-E	Ge	TO3		Matched Pair of AD140; hFE1/hFE2-1.25 to 1.0
92#	2AD149	6	P-A	Ge	TO3		BVCBO-50V; hfe-30 min. at 0.0V and 1.0 IC; ICBO-.35mA
93#	2AD161	6		Ge	TO9		Pt-4W;VCBO-32V;IC-3A pulsed;hFE-80 min;ft-3MHz.
94#	2AD162	6	P	Ge	MD17c	CØ	Matched Pair of AD162;hFE1/2-1.1 at VCE-1.0V;IC-50mA.
95#	2AT329	6	N-PL	Si	MM12a		Matched Pair of AT329; hFE/hFE2-.75 max.
96#	2AT331	6	P-PL	Si			Matched Pair of AT331; hFE/hFE2-.75 max.
97▼#	2BC119	6	N-PE	Si	TO39		Matched Pair of BC119;hFE 1/2 .80min-1.25max at IC of 300mA.
98▼#	2BC138	6	N-DPE	Si	TO39		Matched Pair of BC138;hFE 1/2 1.0min-1.25max at IC of 1.0A.
99#	2BC139	6	P-DPE	Si	TO5		Matched Pair of BC139;hFE1/2-1.25 max;Pt-.70W each.
100▼#	2BC142	6	N-PE	Si	TO39		Matched Pair of BC142;hFE 1/2 .80min-1.0max at IC of 50mA.
101▼#	2BC143	6	P-PE	Si	TO39		Matched Pair of BC143;hFE 1/2 .80min-1.25max at IC of 500mA.
102#	2BC144	6	N-DPE	Si	TO5		Matched Pair of BC144;hFE1/2-1.25 max;Pt-.70W each.
103▼#	2BC221	6	P-DPE	Si	TO105		Matched Pair of BC221;hFE 1/2 1.0min-1.25max at IC of 200mA.
104▼#	2BC222	6	N-DPE	Si	TO105		Matched Pair of BC222;hFE 1/2 1.0min-1.25max at IC of 200mA.
105▼#	2BC286	6	N-DPE	Si	TO5		Matched Pair of BC286;hFE 1/2 .80min-1.25max at IC of 500mA.
106▼#	2BC288	6	N-DPE	Si	TO39		Matched Pair of BC288;hFE 1/2 .80min-1.25max at IC of 2.0A.
107#	2BD117	6	N-DPE	Si	TO3		Matched Pair of BD117;hFE1/2-.80 min;Pc-30W each at Tc-50deg.C.
108#	2C444*	6	N-DPL	Si	L2b		Pt-.50W;hFE1/2-.70 min;VBE(1-2)-20mV max;ft-200Mc min.
109#	2N2X	6	N-PL	Si	TO5		BVCBO-60V; ICBO-.01uA; Matched pair for hFE1/hFE2-.9 min, 1.1 max

13. MISCELLANEOUS TRANSISTORS

IN ORDER OF (1) CATEGORY & (2) TYPE No.

LINE No.	2 TYPE No.	1 CATEGORY USE	STRUC-TURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1	2N282	6	P	Ge	R8		Matched Pair of 2N281
2	2N2060*	6	N-Ø	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-5mV max;ΔVBE(1-2)ΔT-10uV/deg.C.
3	JAN2N2060*	6	N	Si	L2b		Pt-600mW both;VBE(1-2)-.005V;hFE1/2-.90 min;ΔVBE(1-2)-.80mV.
4	2N2060A*	6	N	Si	L2t		Pt-600mW both;VBE(1-2)-3.0mV max;hFE1/2-.90 min.
5	2N2060B*	6	NØ	Si	L2t		Pt-600mW;BVCBO-100V;hFE1/2-.85 min;VBE(1-2)-1.5mV;hFE-120 max.
6	2N2223*	6	N	Si	L2t		Pt-.6W;hFE1/2-.80 min;VBE(1-2)-15mV max;ΔVBE(1-2)/ΔT-25uV/deg.C.
7	2N2223A*	6	N	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-5mV max;ΔVBE(1-2)/ΔT-25uV/deg.C.
8	2N2281	6	P-E	Si	TO18	A	Matched pair of 2N2280; ΔVEE-100uV max.
9	2N2414	6	N	Si			Pc-.50W max;fT-50Mc min;BVCBO-75V;Ic-.5A max;hFE-50 min./Ic-10ma
10#	2N2431MP	6	P-A	Ge	TO1		Matched Pair 2N2431;3.0W out Class B;hFE1/hFE2-1.25 max.
11	2N2453*	6	N	Si	L2t		Pt-.30W;hFE1/2-.90 min;VBE1-2-5.0mV max;ΔVBE(1-2)/ΔT-10uV/Deg.C
12	2N2453A*	6	N	Si	L2t		Pt-.30W;hFE1/2-.90 min;VBE(1-2)-5.0mV max.
13	2N2480*	6	N Ø	Si	L2t		Pt-.6W;hFE1/2-.80 min;VBE(1-2)-10mV max;ΔVBE(1-2)/ΔT-15uV/deg.C.
14	2N2480A*	6	N Ø	Si	L2t		Pt-.6W;hFE1/2-.80 min;VBE(1-2)-5mV max;ΔVBE(1-2)/ΔT-15uV/deg.C.
15	2N2639*	6	N Ø	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-5mV;ΔrBE1-2/ΔT-10uV/deg.C.
16	JAN2N2639*	6	NØ	Si	L2b		Pt-600mW both;hFE1/2-.90 min;VBE(1-2)-5.0mV max;ΔVBE(1-2)/ΔT-10uA/°C.
17	2N2640*	6	N Ø	Si	L2t		Pt-.6W;hFE1/2-.80 min;VBE(1-2)-10mV;ΔrBE1-2/ΔT-20uV/deg.C.
18	2N2642*	6	N Ø	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-5mV;ΔrBE1-2/ΔT-10uV/deg.C.
19	JAN2N2642*	6	NØ	Si	L2b		Pt-600mW both;hFE1/2-.90 min;VBE(1-2)-5.0mV max;ΔVBE(1-2)/ΔT-10uA/°C.
20	2N2643*	6	N Ø	Si	L2t		Pt-.6W;hFE1/2-.80 min;VBE(1-2)-10mV;ΔrBE1-2/ΔT-20uV/deg.C.
21	2N2652*	6	N Ø	Si	L2t		Pt-.6W;hFE1/2-.85 min;VBE(1-2)-3mV;ΔVBE1-2/ΔT-10uV/deg.C.
22	2N2652A*	6	N Ø	Si	L2t		Pd-600mW both;hFE1/2-.90 min;VBE(1-2)-3mV;ΔVBE1-2/ΔT-10uV/deg.C.
23	2N2706MP	6	P	Ge	TO1		Matched Pair of 2N2706 for hFE1/2.
24	2N2720*	6	N	Si	L2t		Pt-600mW;hFE1/2-.90 min;VBE(1-2)-5mV max;ΔVBE1-2/ΔT-1mV.
25	2N2721*	6	N	Si	L2t		Pt-600mW;hFE1/2-.80 min;VBE(1-2)-10mV max;ΔVBE1-2/ΔT-2mV.
26	2N2722*	6	N	Si	L2t		Pt-600mW;hFE1/2-.90 min;VBE(1-2)-5mV max;ΔVBE1-2/ΔT-1mV.
27	2N2802*	6	P	Si	L17k		Pt-.50W;hFE1/2-.90 min;VBE(1-2)-5.0mV max;ΔVBE(1-2)/ΔT-10uV/Deg.C.
28	2N2803*	6	P	Si	L17k		Pt-.50W;hFE1/2-.80 min;VBE(1-2)-10mV max;ΔVBE(1-2)/ΔT-20uV/Deg.C.
29	2N2805*	6	P	Si	L17k		Pt-.50W;hFE1/2-.90 min;VBE(1-2)-5.0mV max;ΔVBE(1-2)/ΔT-10uV/Deg.C.
30	2N2806*	6	P	Si	L17k		Pt-.50W;hFE1/2-.80 min;VBE(1-2)-10mV max;ΔVBE(1-2)/ΔT-20uV/Deg.C.
31	2N2903*	6	N	Si	L2t		Pt-.30W;hFE1/2-.80 min;VBE1-2-1.0mV max;ΔVBE(1-2)/ΔT-20uV/Deg.C
32	2N2903A*	6	N	Si	L2t		Pt-.30W;hFE1/2-.90 min;VBE(1-2)-5.0mV max.
33	2N2910*	6	N	Si	L2b		Pt-600mW both;hFE1/2-.80 min;VBE(1-2)-10mV;ΔVBE(1-2)/ΔT-20uV/deg.C
34	2N2915*	6	NØ	Si	L2t		Pt-.50W;hFE1/2-.90 min;VBE(1-2)-5.0mV max;VCE(sat)-.35 ohms.
35	2N2915A*	6	N Ø	Si	L2t		hFE1/2-.85 min;VBE(1-2)-2.0mV max;Pt-.5W;ΔVBE(1-2)/ΔT-5uV/deg.C.
36	2N2916*	6	N	Si	L2t		Pt-.50W;hFE1/2-.90 min;VBE/1-2/-5.0mV;ΔVBE(1-2)-.80mV.
37	2N2916A*	6	N Ø	Si	L2t		hFE1/2-.85 min;VBE(1-2)-2.0mV max;Pt-.5W;ΔVBE(1-2)/ΔT-5uV/deg.C.
38	2N2917*	6	N	Si	L2t		Pt-.50W;hFE1/2-.80 min;VBE/1-2/-10mV;ΔVBE(1-2)-1.6mV.
39	2N2918*	6	N	Si	L2t		Pt-.50W;hFE1/2-.80 min;VBE/1-2/-10mV;ΔVBE(1-2)-1.6mV.
40	2N2919*	6	N	Si	L2t		Pt-.50W;hFE1/2-.90 min;1VBE/1-2/-5.0mV;ΔVBE(1-2)-.80mV.
41	JAN2N2919*	6	NØ	Si	L2v		Pt-.50W both;hFE1/2-1.1max;ΔVBE1-2-800uVmax;IEBO-2.0nA max.
42	2N2919A*	6	N Ø	Si	L2t		hFE1/2-.85 min;VBE(1-2)-2.0mV max;Pt-.5W;ΔVBE(1-2)/ΔT-5uV/deg.C.
43	2N2920*	6	N	Si	L2t		Pt-.50W;hFE1/2-.90 min;VBE/1-2/-5.0mV;ΔVBE(1-2)-.80mV.
44	JAN2N2920*	6	NØ	Si	L2v		Pt-.50W both;hFE1/2-1.1max;ΔVBE1-2-800uVmax;IEBO-2.0nA max.
45	2N2920A*	6	N Ø	Si	L2t		hFE1/2-.85 min;VBE(1-2)-2.0mV max;Pt-.5W;ΔVBE(1-2)/ΔT-5uV/deg.C.
46	2N2936	6	N	Si	L2b		VCBO-60V max.each;VCEO-55V max.each;VEBO-5.0V max.each;Pc-.6W
47	2N2937	6	N	Si	L2b		VCBO-60V max.each;VCEO-55V max.each;VEBO-5.0V max.each;Pc-.6W
48	2N2974*	6	N*Ø	Si	L2j		Pt-.30W;hFE1/2-.90 min;VBE(1-2)-5mV max;ΔVBE(1-2)/ΔT-.80mV.
49	2N2975*	6	N*Ø	Si	L2j		Pt-.30W;hFE1/2-.90 min;VBE(1-2)-10mV max;ΔVBE(1-2)/ΔT-.80mV.
50	2N2976*	6	N*Ø	Si	L2j		Pt-.30W;hFE1/2-.80 min;VBE(1-2)-5mV max;ΔVBE(1-2)/ΔT-1.6mV.
51	2N2977*	6	N*Ø	Si	L2j		Pt-.30W;hFE1/2-.80 min;VBE(1-2)-10mV max;ΔVBE(1-2)/ΔT-1.6mV.
52	2N2978*	6	N*Ø	Si	L2j		Pt-.30W;hFE1/2-.90 min;VBE(1-2)-5mV max;ΔVBE(1-2)/ΔT-.80mV.
53	2N2979*	6	N*Ø	Si	L2j		Pt-.30W;hFE1/2-.90 min;VBE(1-2)-5mV max;ΔVBE(1-2)/ΔT-.80mV.
54	2N2980*	6	N*Ø	Si	L2j		Pt-.30W;hFE1/2-.90 min;VBE(1-2)-3mV max;ΔVBE(1-2)/ΔT-10uV/deg.C.
55	2N2981*	6	N*	Si	L2j		Pt-.30W;hFE1/2-.80 min;VBE(1-2)-.015V max;ΔVBE(1-2)/ΔT-25uV/deg.C.
56	2N2982*	6	N*Ø	Si	L2j		Pt-.30W;hFE1/2-.90 min;VBE(1-2)-.005V max;ΔVBE(1-2)/ΔT-15uV/deg.C.
57	2N3043	6	N-PE	Si	L2f		Minature dual 2N930;hFE 100-300 at 10uA;10% match;NF-5.0db max.
58	2N3044	6	N-PL	Si	L2f		Minature dual 2N930;hFE 100-300 at 10uA;20% match;NF-5.0db max.
59	2N3045	6	N-PL	Si	L2f		Minature dual 2N930;hFE 100-300 at 10uA;NF-5.0db max.
60	2N3046	6	N-PL	Si	L2f		Minature dual 2N929;hFE 50-200 at 10uA;10% match;NF-5.0db max.
61	2N3047	6	N-PL	Si	L2f		Minature dual 2N929;hFE 50-200 at 10uA;20% match;NF-5.0db max.
62	2N3048	6	N-PL	Si	L2f		Minature dual 2N929;hFE 50-200 at 10uA;NF-5.0db max.
63	2N3049	6	N-PL	Si	L2f		Minature dual 2N2412; 10% hFE match; NF-6.0db max.
64	2N3050	6	P-PE	Si	L2f		Minature dual 2N2412; 20% hFE match; NF-6.0db max.
65	2N3051	6	P-PE	Si	L2f		Minature dual 2N2412;td-15nsec;tr-20nsec;ts-120nsec;tf-30nsec.
66	2N3052	6	N-PE	Si	L2f		Minature dual 2N706-2N914 type;ton-62nsec max;toff-55nsec max.
67	2N3333*	6	P	Si	L21c		Pt-40mW;ID(on)1/2-.95 min;VGS1/2-.95 min;VGS(1-2)-15mV.
68	2N3334*	6	P	Si	L21c		Pt-40mW;ID(on)1/2-.95 min;VGS1/2-.95 min;VGS(1-2)-20mV.
69	2N3335*	6	P	Si	L21c		Pt-40mW;ID(on)1/2-.90 min;VGS1/2-.90 min;VGS(1-2)-40mV.
70	2N3336*	6	P	Si	L21c		Pt-40mW;ID(on)1/2-.80 min;VGS1/2-.80 min;VGS(1-2)-80mV.
71	2N3347*	6	P	Si	L17k		Pt-.6W;hFE1/2-.90 min;R(sat)-50ohms.
72	2N3348*	6	P	Si	L17k		Pt-.6W;hFE1/2-.80 min;R(sat)-50ohms.
73	2N3349*	6	P	Si	L17k		Pt-.6W;hFE1/2-.60 min;R(sat)-50ohms.
74	2N3350*	6	P	Si	L17k		Pt-.6W;hFE1/2-.90 min;R(sat)-50ohms.
75	2N3351*	6	P	Si	L17k		Pt-.6W;hFE1/2-.80 min;R(sat)-50ohms.
76	2N3352*	6	P	Si	L17k		Pt-.6W;hFE1/2-.60 min;R(sat)-50ohms.
77	2N3409*	6	N	Si	L2y		Pt-600mW both;hFE1/2-.80 min;VBE(1-2)-10mV;VC1C2-100V.
78	2N3410*	6	N	Si	L2y		Pt-600mW both;hFE1/2-.90 min;VBE(1-2)-10mV;VC1C2-100V.
79	2N3411*	6	N	Si	L2y		Pt-600mW both;hFE1/2-.90 min;VBE(1-2)-5.0mV;VC1C2-100V.
80	2N3423*	6	N	Si	L2t		Pt-.45W;hFE1/2-.80 min;VBE(1-2)-10mV;ΔVBE(1-2)/ΔT-4uV/deg.C.
81	2N3424*	6	N	Si	L2t		Pt-.45W;hFE1/2-.90 min;VBE(1-2)-5mV;ΔVBE(1-2)/ΔT-2uV/deg.C.
82	2N3513	6	N	Si	L22		Pt-.75W both sides;VCBO-80V max;VCEO-40V max;VEBO-5.0V max.
83	2N3515	6	N	Si	X27		Pt-1.4W both sides;VCBO-80V max;VCEO-40V max;VEBO-5.0V max.
84	2N3516	6	N	Si	L22		Pt-.75W both sides;VCBO-100V max;VCEO-60V max;VEBO-7.0V max.
85	2N3518	6	N	Si	X27		Pt-1.4W both sides;VCBO-100V max;VCEO-60V max;VEBO-7.0V max.
86	2N3520	6	N	Si	X27		Pt-1.4W both sides;VCBO-60V max;VCEO-30V max;VEBO-7.0V max.
87	2N3521	6	N	Si	L23		Pt-1.5W both sides;VCBO-70V max;VCEO-55V max;VEBO-7.0V max.
88	2N3522	6	N	Si	L22		Pt-.75W both sides;VCBO-70V max;VCEO-55V max;VEBO-7.0V max.
89	2N3524	6	N	Si	X27		Pt-1.4W both sides;VCBO-70V max;VCEO-55V max;VEBO-7.0V max.
90	2N3680*	6	N	Si	L2t		Pt-600mW;hFE1/2-.85 min;VBE/1-2/-3mV max;ΔVBE1-2/ΔT-400uV.
91	2N3726*	6	PØ	Si	L17h		Pt-.5W;hFE1/2-.90 min;VBE(1-2)-5mV max;ΔVBE(1-2)/ΔT-20uV/deg.C.
92	2N3727*	6	PØ	Si	L17h		Pt-.5W;hFE1/2-.90 min;VBE(1-2)-2.5mV max;ΔVBE(1-2)/ΔT-10uV/deg.C.
93	2N3728*	6	NØ	Si	L2t		Pt-.55W;hFE1/2-.80 min;VBE(1-2)-5mV max;ΔVBE(1-2)/ΔT-20uV/deg.C.
94	2N3729*	6	NØ	Si	L2t		Pt-.55W;hFE1/2-.90 min;VBE(1-2)-3mV max;ΔVBE(1-2)/ΔT-10uV/deg.C.
95	2N3802*	6	P Ø	Si	L17e		Pt-360mW;hFE1/2-.80 min;VBE1-2-8.0mV max.
96	2N3803*	6	PØ	Si	L17e		Pt-360mW;hFE1/2-.80 min;VBE1-2-8.0mV max.
97	2N3804*	6	PØ	Si	L17e		Pt-360mW;hFE1/2-.90 min;VBE1-2-8.0mV max.
98	2N3804A*	6	P Ø	Si	L17e		Pt-.36W;hFE1/2-.95 min;VBE1/2-5mV max;ΔVBE(1-2)/ΔT-.50mV/deg.C.
99	2N3805*	6	PØ	Si	L17e		Pt-360mW;hFE1/2-.90 min;VBE1-2-8.0mV max.
100	2N3805A*	6	P Ø	Si	L17e		Pt-.36W;hFE1/2-.95 min;VBE1/2-5mV max;ΔVBE(1-2)/ΔT-.50mV/deg.C.
101	2N3808*	6	PØ	Si	L17k		Pt-600mW;hFE1/2-.80 min;VBE1-2-8.0mV max.
102	2N3809*	6	PØ	Si	L17k		Pt-600mW;hFE1/2-.80 min;VBE1-2-8.0mV max.
103	2N3810*	6	PØ	Si	L17k		Pt-600mW;hFE1/2-.90 min;VBE1-2-5.0mV max.
104	JAN2N3810	6	P	Si	L17h		Pt(both sides)-.60W;hFE1/2-.90to 1.0;VBE(1-2)-.005max;BVCBO-60V
105	2N3810A*	6	PØ	Si	L17h		Pt-.6W;hFE1/2-.95 min;VBE1/2-5mV max;ΔVBE(1-2)/ΔT-.50mV/deg.C.
106	2N3811*	6	PØ	Si	L17k		Pt-600mW;hFE1/2-.90 min;VBE1-2-5.0mV max.
107	JAN2N3811	6	P	Si	L17h		Pt(both sides)-.60W;hFE1/2-.90to 1.0;VBE(1-2)-.005max;BVCBO-60V
108	2N3811A*	6	PØ	Si	L17h		Pt-.6W;hFE1/2-.95 min;VBE1/2-5mV max;ΔVBE(1-2)/ΔT-.50mV/deg.C.
109	2N3814*	6	PØ	Si	L17s		Pt-.35W;VBE(1-2)-8.0mV max;hFE1/2-1.0 max. at IC-1mA;VCE-5V.
110	2N3815*	6	PØ	Si	L17s		Pt-.35W;VBE(1-2)-8.0mV max;hFE1/2-1.0 max. at IC-1mA;VCE-5V.

13. MISCELLANEOUS TRANSISTORS

IN ORDER OF (1) CATEGORY & (2) TYPE No.

LINE No.	2 TYPE No.	1 CATEGORY USE	STRUCTURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1	2N3816*	6	PØ	Si	L17s		Pt-.35W;VBE(1-2)-5.0mV max;hFE1/2-1.0 max. at IC-1mA;VCE-5V.
2	2N3816A*	6	PØ	Si	L17s		Pt-.35W;hFE1/2-.95 min;VBE1/2-5mV max;ΔVBE(1-2)ΔT-.50mV/deg.C.
3	2N3817*	6	PØ	Si	L17s		Pt-.35W;VBE(1-2)-5.0mV max;hFE1/2-1.0 max. at IC-1mA;VCE-5V.
4	2N3817A*	6	PØ	Si	L17s		Pt-.35W;hFE1/2-.95 min;VBE1/2-5mV max;ΔVBE(1-2)ΔT-.50mV/deg.C.
5	2N3907*	6	NØ	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-2.5mV max;ΔVBE(1-2)/ΔT-5uV/deg.C.
6	2N3908*	6	NØ	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-2.5mV max;ΔVBE(1-2)/ΔT-5uV/deg.C.
7	2N3921*	6	NØ	Si	L21d		Pt-300mW;gm1/2-.95min;ΔVGS(1-2)/ΔT-10uV/°C;VGS(1-2)-5.0mVmax.
8	2N3922*	6	NØ	Si	L21d		Pt-300mW;gm1/2-.95min;ΔVGS(1-2)/ΔT-25uV/°C;VGS(1-2)-5.0mVmax.
9	2N3934*	6	NØ	Si	L21d		Pt-300mW;gm1/2-.95min;ΔVGS(1-2)/ΔT-10uV/°C;VGS(1-2)-5.0mVmax.
10	2N3935*	6	NØ	Si	L21d		Pt-300mW;gm1/2-.95min;ΔVGS(1-2)/ΔT-25uV/°C;VGS(1-2)-5.0mVmax.
11	2N3954	6	N	Si	L61a		Pt-.50W;IDSS1/2-.95 min;VGS(1-2)-5mV max;Yfs1/2-.97 min.
12	2N3954A*	6	N*Ø	Si	L61a		Pt-.50W;IDSS1/2-.95 min;VGS(1-2)-5mV;ΔVGS(1-2)/ΔT-.5mV.
13	2N3955	6	N	Si	L61a		Pt-.50W;IDSS1/2-.95 min;VGS(1-2)-10mV max;Yfs1/2-.95 min.
14	2N3955A*	6	NØ	Si	L61a		Pt-.50W;IDSS1/2-.95 min;VGS(1-2)-5mV;ΔVGS(1-2)/ΔT-1.5mV.
15	2N3956	6	N	Si	L61a		Pt-.50W;IDSS1/2-.95 min;VGS(1-2)-15mV max;Yfs1/2-.95 min.
16	2N3957	6	N	Si	L61a		Pt-.50W;IDSS1/2-.90 min;VGS(1-2)-20mV max;Yfs1/2-.90 min.
17	2N3958	6	N	Si	L61a		Pt-.50W;IDSS1/2-.85 min;VGS(1-2)-25mV max;Yfs1/2-.85 min.
18	2N4009	6	PØ	Si	TO46	AØ	Matched Pair 2N4006;Voff-.02mV;ΔRS(ON)-5.0 ohms;ΔVCB-100mV max.
19	2N4010	6	PØ	Si	TO46	AØ	Matched Pair 2N4007;Voff-.02mV;ΔRS(ON)-5.0 ohms;ΔVCB-100mV max.
20	2N4011	6	PØ	Si	TO46	AØ	Matched Pair 2N4008;Voff-.02mV;ΔRS(ON)-5.0 ohms;ΔVCB-100mV max.
21	2N4015*	6	PØ	Si	L17k		BVCBO-60V;IC-300mA max;Pt-.50W;VBE(1-2)-5.0mV;hFE1/2-.90 min.
22	2N4016*	6	PØ	Si	L17k		BVCBO-60V;IC-300mA max;Pt-.50W;VBE(1-2)-2.5mV;hFE1/2-.90 min.
23	2N4020*	6	PØ	Si	L17k		BVCBO-45V;IC-200mA max;Pt-.60W;VBE(1-2)-5.0mV;hFE1/2-.80 min.
24	2N4021*	6	PØ	Si	L17k		BVCBO-60V;IC-200mA max;Pt-.60W;VBE(1-2)-5.0mV;hFE1/2-.80 min.
25	2N4022*	6	PØ	Si	L17k		BVCBO-60V;IC-200mA max;Pt-.60W;VBE(1-2)-5.0mV;hFE1/2-.80 min.
26	2N4023*	6	PØ	Si	L17k		BVCBO-45V;IC-200mA max;Pt-.60W;VBE(1-2)-3.0mV;hFE1/2-.90 min.
27	2N4024*	6	PØ	Si	L17k		BVCBO-60V;IC-200mA max;Pt-.60W;VBE(1-2)-3.0mV;hFE1/2-.90 min.
28	2N4025*	6	PØ	Si	L17k		BVCBO-60V;IC-200mA max;Pt-.60W;VBE(1-2)-3.0mV;hFE1/2-.90 min.
29	2N4044	6	N	Si	L2m		BVCBO-60V;IC-10mA;Pt-.75W;VBE(1-2)-3.0mV;hFE1/2-.90 min.
30	2N4045	6	N	Si	L2m		BVCBO-45V;IC-10mA;Pt-.75W;VBE(1-2)-5.0mV;hFE1/2-.80 min.
31	2N4082	6	N	Si	L21		VGS(off)at ID-.50nA-3.0V;Yfs-300umhos min;Yfs1/2-.95 min;BVDS-50V
32	2N4083	6	N	Si	L21		VGS(off)at ID-.50nA-3.0V;Yfs-300umhos min;Yfs1/2-.95 min;BVDS-50V
33	2N4084	6	N	Si	L21		VGS(off)at ID-1.0nA-3.0V;Yfs-1500umhos min;Yfs1/2-.95 min;BVDS-50V
34	2N4085	6	N	Si	L21		VGS(off)at ID-1.0nA-3.0V;Yfs-1500umhos min;Yfs1/2-.95 min;BVDS-50V
35	2N4100*	6	N	Si	L2m		VBE1-VBE2 - 5.0mVmax;IB1-IB2-10nAmax;Δ(IB1-IB2)-.70nA/deg.C max.
36	2N4241MP	6	P	Ge	TO1		Matched Pair of 2N4241 for hFE1/2.
37	2N4878*	6	N	Si	L2p		Pt-.5W;hFE1/2-.90 min;VBE(1-2)-3mV max;ΔVBE(1-2)/ΔT-3uV/deg.C
38	2N4879*	6	N	Si	L2p		Pt-.5W;hFE1/2-.85 min;VBE(1-2)-5mV max;ΔVBE(1-2)/ΔT-5uV/deg.C
39	2N4880*	6	N	Si	L2p		Pt-.5W;hFE1/2-.80 min;VBE(1-2)-5mV max;ΔVBE(1-2)/ΔT-10uV/deg.C
40	2N4937*	6	PØ	Si	L17p		Pt-.6W;VBE(1-2)-3mV max;ΔVBE(1-2)/ΔT-1.0mV/deg.C;hFE1/2-.85 min.
41	2N4938*	6	PØ	Si	L17p		Pt-.60W;VBE(1-2)-5mV max;ΔVBE(1-2)/ΔT-2mV/deg.C;hFE1/2-.70 min.
42	2N4940*	6	PØ	Si	L17d		Pt-.35W;hFE1/2-.80 min;VBE(1-2)-5mV max;ΔVBE(1-2)ΔT-2.0mV max.
43	2N4941*	6	PØ	Si	L17d		Pt-.35W;hFE1/2-.90 min;VBE(1-2)-3mV max;ΔVBE(1-2)ΔT-1.0mV max.
44	2N5045*	6	N	Si	L21		Pt-400mW;VGS(1-2)-5.0mV;yfs1/2-.95 min;IGSS1-2-10nA max.
45	2N5046*	6	N	Si	L21		Pt-400mW;VGS(1-2)-10mV;yfs1/2-.90 min;IGSS1-2-10nA max.
46	2N5047*	6	N	Si	L21		Pt-400mW;VGS(1-2)-15mV;yfs1/2-.80 min;IGSS1-2-10nA max.
47	2N5117*	6	P-PLØ	Si	L17c		Pt-.75W;VBE(1-2)-3mV;ΔVBE(1-2)-3uV/deg.C;hFE1/2-.90 min.
48	2N5118*	6	P-PLØ	Si	L17c		Pt-.75W;VBE(1-2)-5mV;ΔVBE(1-2)-5uV/deg.C;hFE1/2-.85 min.
49	2N5119*	6	P-PLØ	Si	L17c		Pt-.75W;VBE(1-2)-5mV;ΔVBE(1-2)-10uV/deg.C;hFE1/2-.80 min.
50	2N5120*	6	PØ	Si	L17c		Pt-500mW;VBE(1-2)-3mV;ΔVBE(1-2)-3uV/°C;hFE1/2-.90min.
51	2N5121*	6	PØ	Si	L17c		Pt-500mW;VBE(1-2)-5mV;ΔVBE(1-2)-5uV/°C;hFE1/2-.85min.
52	2N5122*	6	PØ	Si	L17c		Pt-500mW;VBE(1-2#-5mV;ΔVBE(1-2)-10uV/°C;hFE1/2-.80min.
53	2N5123*	6	PØ	Si	L17w		Pt-750mW;VBE(1-2)-3mV;ΔVBE(1-2)-3uV/°C;hFE1/2-.90min.
54	2N5124*	6	PØ	Si	L17w		Pt-750mW;VBE(1-2)-5mV;ΔVBE(1-2)-5uV/°C;hFE1/2-.85min.
55	2N5125*	6	PØ	Si	L17w		Pt-750mW;VBE(1-2)-5mV;ΔVBE(1-2)-10uV/°C;hFE1/2-.80min.
56	2N5196*	6	N Ø	Si	L61b		Pt-.50W;IDSS1/2-.95 min;VGS(1-2)-5mV;yfs1/2-.97 min.
57	2N5197*	6	N Ø	Si	L61b		Pt-.50W;IDSS1/2-.95 min;VGS(1-2)-5mV;yfs1/2-.97 min.
58	2N5198*	6	N Ø	Si	L61b		Pt-.50W;IDSS1/2-.95 min;VGS(1-2)-10mV;yfs1/2-.95 min.
59	2N5199*	6	N Ø	Si	L61b		Pt-.50W;IDSS1/2-.95 min;VGS(1-2)-15mV;yfs1/2-.95 min.
60	2N5255*	6	P-Ø	Si	L17t		Pt-.43W;hFE1/2-.80 min;VBE(1-2)-5.0mV max;ΔVBE(1-2)/ΔT-20uV/deg.C
61	2N5256*	6	P-Ø	Si	L17t		Pt-.43W;hFE1/2-.90 min;VBE(1-2)-3.0mV max;ΔVBE(1-2)/ΔT-10uV/deg.C
62	2N5452*	6	N-EØ	Si	L58		Pt-.50W;VGS(1-2)-5mV;ΔVGS(1-2)-5uV/deg.C;yfs1/2-.97 min.
63	2N5453*	6	N-EØ	Si	L58		Pt-.50W;VGS(1-2)-10mV;ΔVGS(1-2)-10uV/deg.C;yfs1/2-.97 min.
64	2N5454*	6	N-EØ	Si	L58		Pt-.50W;VGS(1-2)-15mV;ΔVGS(1-2)-25uV/deg.C;yfs1/2-.95 min.
65	2N5505*	6	P#Ø	Si	L21		Pt-.3W;IG(1-2)-50pA;Yos(1-2)-1.5umhos;VGS(1-2)-5mV;VGS(1-2)/TΔ-.8mV.
66	2N5506*	6	P#Ø	Si	L21		Pt-.3W;IG(1-2)-50pA;Yos(1-2)-1.5umhos;VGS(1-2)-15mV;VGS(1-2)/TΔ-.8mV
67	2N5507*	6	P#Ø	Si	L21		Pt-.3W;IG(1-2)-50pA;Yos(1-2)-1.5umhos;VGS(1-2)-5mV;VGS(1-2)/TΔ-1.9mV
68	2N5508*	6	P#Ø	Si	L21		Pt-.3W;IG(1-2)-50pA;Yos(1-2)-1.5umhos;VGS(1-2)-15mV;VGS(1-2)/TΔ-1.9mV
69	2N5509*	6	P#Ø	Si	L21		Pt-.3W;IG(1-2)-50pA;Yos(1-2)-1.5umhos;VGS(1-2)-25mV;VGS(1-2)/TΔ-3.8mV
70	2N5510*	6	P#Ø	Si	L21		Pt-.3W;IG(1-2)-50pA;Yos(1-2)-1.0umhos;VGS(1-2)-5mV;VGS(1-2)/TΔ-.8mV
71	2N5511*	6	P#Ø	Si	L21		Pt-.3W;IG(1-2)-50pA;Yos(1-2)-1.0umhos;VGS(1-2)-15mV;VGS(1-2)/TΔ-.8mV
72	2N5512*	6	P#Ø	Si	L21		Pt-.3W;IG(1-2)-50pA;Yos(1-2)-1.0umhos;VGS(1-2)-5mV;VGS(1-2)/TΔ-1.9mV
73	2N5513*	6	P#Ø	Si	L21		Pt-.3W;IG(1-2)-50pA;Yos(1-2)-1.0umhos;VGS(1-2)-15mV;VGS(1-2)/TΔ-1.9mV
74	2N5514*	6	P#Ø	Si	L21		Pt-.3W;IG(1-2)-50pA;Yos(1-2)-1.0umhos;VGS(1-2)-25mV;VGS(1-2)/TΔ-3.8mV
75	2N5515*	6	N		L61b		Pt-.50W;VGS(1-2)-5mV max;ΔVGS(1-2)/ΔT-.4mV max.
76	2N5516*	6	N		L61b		Pt-.50W;VGS(1-2)-5mV max;ΔVGS(1-2)/ΔT-.8mV max.
77	2N5517*	6	N		L61b		Pt-.50W;VGS(1-2)-10mV max;ΔVGS(1-2)/ΔT-1.6mV max.
78	2N5518*	6	N		L61b		Pt-.50W;VGS(1-2)-15mV max;ΔVGS(1-2)/ΔT-3.2mV max.
79	2N5519*	6	N		L61b		Pt-.50W;VGS(1-2)-15mV max;ΔVGS(1-2)/ΔT-6.4mV max.
80	2N5520*	6	N		L61b		Pt-.50W;VGS(1-2)-5mV max;ΔVGS(1-2)/ΔT-.4mV max.
81	2N5521*	6	N		L61b		Pt-.50W;VGS(1-2)-5mV max;ΔVGS(1-2)/ΔT-.8mV max.
82	2N5522*	6	N		L61b		Pt-.50W;VGS(1-2)-10mV max;ΔVGS(1-2)/ΔT-1.6mV max.
83	2N5523*	6	N		L61b		Pt-.50W;VGS(1-2)-15mV max;ΔVGS(1-2)/ΔT-3.2mV max.
84	2N5524*	6	N		L61b		Pt-.50W;VGS(1-2)-15mV max;ΔVGS(1-2)/ΔT-6.4mV max.
85	2N5545*	6	N*Ø	Si	L61a		Pt-.40W;IDSS1/2-.95 min;ΔVGS(1-2)/ΔT-.8mV;Yos(1-2)-1.0umho.
86	2N5546*	6	N*Ø	Si	L61a		Pt-.40W;IDSS1/2-.90 min;ΔVGS(1-2)/ΔT-1.6mV;Yos(1-2)-2.0umho.
87	2N5547*	6	N*Ø	Si	L61a		Pt-.40W;IDSS1/2-.90 min;ΔVGS(1-2)/ΔT-3.2mV;Yos(1-2)-3.0umho.
88	2N5561*	6	NØ	Si	L61a		Pt-500mW;IDSS1/2-.95min;VGS(1-2)-5mVmax;ΔVGS(1-2)/ΔT-500uVmax;yfs1/2-.97min.
89	2N5562*	6	NØ	Si	L61a		Pt-500mW;IDSS1/2-.95min;VGS(1-2)-10mVmax;ΔVGS(1-2)/ΔT-800uVmax;yfs1/2-.97min.
90	2N5563*	6	NØ	Si	L61a		Pt-5v0mW;IDSS1/2-.95min;VGS(1-2)-15mVmax;ΔVGS(1-2)/ΔT-2.0mVmax;yfs1/2-.95min.
91	2N5564*	6	NØ	Si	L61a		Pt-650mW;IDSS1/2-.95min;VGS(1-2)-5mVmax;ΔVGS(1-2)/ΔT-800uVmax;yfs1/2-.95min.
92	2N5565*	6	NØ	Si	L61a		Pt-650mW;IDSS1/2-.95min;VGS(1-2)-10mVmax;ΔVGS(1-2)/ΔT-2.0mVmax;yfs1/2-.90min.
93	2N5566*	6	NØ	Si	L61a		Pt-650mW;IDSS1/2-.95min;VGS(1-2)-20mVmax;ΔVGS(1-2)/ΔT-4.0mVmax;yfs1/2-.90min.
94#	2OC6	6	P-A	Ge	TO3		Matched Pair of OC20; hFE1/hFE2-1.2 to 1.0
95#	2OC28	6	P-A	Ge	TO3		Matched Pair of OC28;hFE 1/2-1.2
96#	2OC29	6	P-A	Ge	TO3		Matched Pair of OC29;hFE 1/2-1.2
97#	2OC35	6	P-A	Ge	TO3		Matched Pair of OC35;hFE 1/2-1.2
98#	2OC36	6	P-A	Ge	TO3		Matched Pair of OC36;hFE 1/2-1.2
99#	2OC74	6	P	Ge	R8		Matched Pair of OC74;hFE1/2-1.15 at IE-50mA;VCE-6.0V.
100#	2OC83	6	P-A	Ge	R8		Matched Pair of OC83
101#	2OC84	6	P-A	Ge	R8		Matched pair of OC84;hFE1/2-.83 min.
102	3N151*	6	P-MOS	Si	L53		Pt-325mW;ID1/2-.90min;VGS(1-2)-250mV;yfs1/2-.80min;yos1/2-10umhos.
103	3N165*	6	PΔ	Si	L18c		Pt-525mW;yfs1/2-.90min;VGS(th)(1-2)-100mVmax;tr-30nS;ton-15nS;toff-50nS.
104	12A104	6	N-PL	Si	L2a		Pt-250mWea;ICBO-2.0nA max;hFE-25min;VBE1/2-5.0mV max;ft-60Mc min.
105	12A108	6	N-PL	Si	TO18		PT-.75W both sides;VCBO-50V min;hFE match-40%;VBE match-15mV.
106	12G1	6	N-PL	Si	TO5		PT-1.5W both sides;VCBO-35V min;hFE-30mA.
107	12G2	6	N-PL	Si	TO5		PT-1.5W both sides;VCBO-30V min;hFE match-.85/1.0;VBE match-10V.
108	12G101	6	N-PL	Si	TO18		PT-.75W both sides; VCBO-35V min.
109	12H901	6	N-PL	Si	X27		Pt-1.4W Both Sides;VCBO-30V min;ICBO-10nA.
110	12H902	6	N-PL	Si	X27		Pt-1.4W Both Sides;VCBO-30V min;hFE Match-.80/1.0

13. MISCELLANEOUS TRANSISTORS

LINE No.	2 TYPE No.	1 CATEGORY USE	STRUCTURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1	12J901	6	N-PL	Si	X27		Pt-1.4W Both Sides;VCBO-40VK:ICBO-.40uA.
2	12J902	6	N-PL	Si	X27		Pt-1.4W Both Sides;VCBO-40V;ICBO-.40uA;hFE Match-.80/1.0
3	12J905	6	N-PL	Si	X27		PT-1.4W both sides;VCBO-40V min;hFE match-.80/1.0
4	12X084B	6	N	Si	X14		VCEO-15V max;hFE-30 min at 10mA;ICBO-200mA max at 20V;Cob-6pf max
5	12X165	6	N-PL	Si	L2a		PA-300mW; VCEO-55V; hFE-100 min; hFE1/hFE2-.80 to 1.0.
6	A600	6	N-PL	Si	L2b		VBE(1-2)-10mV;BVCBO-50V;IC-50mA;ft-50Mc;ICBO-10nA max;hFE1/2-.90
7	A601	6	N-PL	Si	L2b		VBE(1-2)-10mV;IC-50mAmax;BVCBO-50V;ICBO-10nAmax;hFE-175 min.
8	A602	6	N-PL	Si	L2b		BVEO-35V;IC-30mA;ft-30Mc;hFE1/2-.80;VBE(1-2)-20mV max;hFE-50 min.
9	A603	6	N-PL	Si	L2b		BVEO-35V;IC-30mA;ft-30Mc;hFE1/2-.80;VBE(1-2)-5.0mV max;hFE-100 min.
10	A604	6	N-PL	Si	L2b		BVEO-35V;IC-30mA;ft-30Mc;hFE1/2-.80;VBE(1-2)-10mV max;hFE-100 min.
11	A605	6	N-PL	Si	L2b		BVEO-35V;IC-30mA;ft-30Mc;hFE1/2-.90;VBE(1-2)-5.0mV max;hFE-100 min.
12	A606	6	N-PL	Si	L2b		BVEO-35V;IC-30mA;ft-30Mc;hFE1/2-.90;VBE(1-2)-10mV max;hFE-100 min.
13	A607*	6	N-PL	Si	L2b		VBE1/VBE2-1.5mV;hFE1/hFE2-1.0 max;Pt-.30W(both);IC-30mA.
14	A608*	6	N-PL	Si	L2b		VBE1/VBE2-3.0mV;hFE1/hFE2-1.0 max;Pt-.30W(both);IC-30mA.
15	A610L*	6	N	Si	X70a	DH	IDSS1/2-.95 min;VGS1/2-5.0mV max;yfs1/2-.97 min.
16	A610S*	6	N	Si	X70	DH	IDSS1/2-.95 min;VGS1/2-5.0mVmax;Yfs1/2-.97 min.
17	A611L*	6	N	Si	X70a	DH	IDSS1/2-.95 min;VGS1/2-10mV max;Yfs1/2-.95 min.
18	A611S*	6	N	Si	X70	DH	IDSS1/2-.95 min;VGS1/2-10mVmax;Yfs1/2-.95 min.
19	A640L,S*	6	N-PLØ	Si	ZA26		Pt-300mW Both Sides; hFE 1/2-1.0 max; VBE(1-2)-3.0mV max.
20	A641L,S*	6	N-PLØ	Si	ZA26		Pt-300mW Both Sides; hFE 1/2-1.0 max; VBE(1-2)-3.0mV max.
21	A642L,S*	6	N-PLØ	Si	ZA26		Pt-300mW Both Sides; hFE 1/2-1.0 max; VBE(1-2)-3.0mV max.
22	A643L,S*	6	N-PL	Si	ZA26		Pt-300mW Both Sides; hFE 1/2-1.0 max; VBE(1-2)-15mV max.
23	A644L,S*	6	N-PL	Si	ZA26		Pt-300mW Both Sides; hFE 1/2-1.0 max; VBE(1-2)-15mV max.
24	A645L,S*	6	N-PL	Si	ZA26		Pt-300mW Both Sides;hFE1/2-1.0 max;VBE(1-2)-15mV max.
25	A646*	6	N-PL	Si	L2b		VBE1/VBE2-20mV max;hFE1/hFE2-1.0 max;Pt-.30W(both);IC-30mA.
26	A649L*	6	N-PLØ	Si	X56a	A	Pt-.30W;hFE(1-2)-.90min;(VBE 1-VBE2)-1.0mV max;BVCEO-30V.
27	A649S*	6	N-PLØ	Si	X56	A	Pt-.30W;hFE(1-2)-.90min;(VBE 1-VBE2)-1.0mV max;BVCEO-30V.
28	A1480	6	N-PE	Si	TO18		Pt-300mW max;VCEO-5.0V;VEBO-5.0V;Voffset-250uV max;ΔVoff-50uV.
29#	BCW25*	6	NPL	Si	L2		Pt-600mW;hFE1/2-1.0max;VBE(1-2)-20mV max;VBE(1-2)ΔTA-30uV/°C max.
30#	BCY55	6	N-PF	Si	X44		Pc-300mW;VCB-45V;IC-30mA;ΔVBE-1uV/deg.C;ΔIB-.50nA/deg.C
31#	BCY87	6	N-PLØ	Si	L17u		VBE(1-2)-3.0mV max;IB(1-2)-25nA max;ΔV/ΔT-1.0uV/deg.C.
32#	BCY88	6	N-PLØ	Si	L17u		VBE(1-2)-6.0mV max;IB(1-2)-80nA max;ΔV/ΔT-2.0uV/deg.C.
33#	BCY89	6	N-PLØ	Si	L17u		VBE(1-2)-10mV max;IB(1-2)-300nA max;ΔV/ΔT-4.0uV/deg.C.
34#	BFW39	6	N	Si	L2i		Pt-.40Wea;IC-30mA;hFE1/2-.90 min;VBE(1-2)-5mV;hFE-60 min.
35#	BFW39A	6	N	Si	L2i		hFE1/2-.85 min;VBE(1-2)-2.0mV max;Pt-.50W.
36#	BFW40	6	N	Si	L2i		Pt-.40Wea;IC-30mA;hFE1/2-.99 min;VBE(1-2)-5mV;hFE-150 min.
37#	BFW40A	6	N	Si	L2i		Pt-.50W device;hFE1/2-1.1 max;ΔVBE-10uV/C deg max.
38#	BFW51	6	N	Si	L2j		fT-60MHz min;LVCEO-45V;hFE-60 to 240;VBE(1-2)3mV;hFE1/2-.90 min.
39#	BFW51A	6	N	Si	L2j		fT-60MHz min;LVCEO-60V;hFE-60 to 240;VBE(1-2)1.5mV;hFE1/2-.90 min.
40#	BFW52	6	N	Si	L2j		fT-60MHz min;LVCEO-45V;hFE-150 to 600;VBE(1-2)3mV;hFE1/2-.90 min.
41#	BFW52A	6	N	Si	L2j		fT-60MHz min;LVCEO-60V;hFE-150 to 600;VBE(1-2)1.5mW;hFE1/2-.90 min.
42#	BFX11*	6	P-DPE	Si	L2d		Pt-.40W each;ICBO-10nA max;hFE1/2-.80 min;ΔVBE-5.0mV max.
43#	BFX15*	6	N-PL	Si	L2d		Pt-.50W each;VBE1/2-5.0mV max;hFE1/2-.90 min;ICBO-10nA max.
44#	BFX16*	6	N-DPL	Si	L50		Pt-.50W total;BVCBO-45V;hFE1/2-.80 min;VBE1/VBE2-5.0mV max.
45#	BFX36*	6	P-DPE	Si	L2b		Pt-.40W each;hFE1/hFE2-.90 min;VBE1/2-3.0mV max;ICBO-10nA max.
46#	BFX70*	6	N-DPLØ	Si	L2b		Pt-.6W;hFE1-2-.90 min;VBE(1-2)-5.0mV max;ΔVBE(1-2)/ΔT-10uV/deg.C.
47#	BFX71*	6	N-DPL	Si	L2b		Pt-.6W;hFE1-2-.80 min;VBE(1-2)-15mV max;ΔVBE(1-2)/ΔT-25uV/deg.C.
48#	BFX72*	6	N-DPL	Si	L2b		Pt-.6W;hFE1-2-.90 min;VBE(1-2)-5.0mV max;ΔVBE(1-2)/ΔT-25uV/deg.C.
49#	BFX99*	6	N-DPLØ	Si	L2b		Pt-.6W;hFE1-2-.90 min;VBE(1-2)-1.5mV max;ΔVBE(1-2)-.50mV max.
50#	BFY20	6	N-PL	Si	L2		ft-245Mc;BVCBO-40V;hFE-10 min./.10mA;10mV-VBE match;pt-.60W.
51#	BFY81	6	NDPL	Si	L2b		Pt-.60W;BVCBO-45V;ft-60Mc min;hFE1/2-.80 min;VBE(1-2)-10mV max.
52#	BFY82	6	NDPL	Si	L2b		Pt-.50W;BVCBO-60V;ft-250Mc min;hFE1/2-.80 min;VBE(1-2)-15mV max.
53#	BFY83	6	NDPL	Si	L2b		Pt-.60W;BVCBO-100V;ft-50Mc min;hFE1/2-.80 min;VBE(1-2)-15mV max.
54#	BFY84	6	NDPE	Si	L2b		Pt-.38W;BVCBO-30V;ft-600Mc min;hFE1/2-.80 min;VBE(1-2)-15mV max.
55#	BFY85*	6	N-PE	Si	L2t		Pt-260mW;hFE Diff. 20% max;VBE Diff. 10mV max.
56#	BFY86*	6	N-PE	Si	L2t		Pt-260mW;hFE Diff. 10% max;VBE Diff. 5.0mV max.
57#	BFY91	6	N-PL	Si	L2t		ft-60Mc;BVCEO-45V;hFE-60-240/10uA;5mV-VBE match;10%hFE match.
58#	BFY92	6	N-PL	Si	L2t		ft-60Mc;BVCEO-45V;hFE-60-240/10uA;10mV-VBE match;20%hFE match.
59#	BN209	6	N	Si	L2b		Pt(both sides)-250mW;hFE1/hFE2-.80 min;VBE1-VBE2-10mV. max.
60	CS2639*	6	N-DPL	Si	L2r		Pt-.30W;hFE1/2-.90 min;VBE(1-2)-5.0mV;hFE-65 max. at IC-1.0mA.
61	CS2640*	6	N-DPL	Si	L2r		Pt-.30W;hFE1/2-.80 min;VBE(1-2)-10mV;hFE-65 max. at IC-1.0mA.
62	CS2642*	6	N-DPL	Si	L2r		Pt-.30W;hFE1/2-.90 min;VBE(1-2)-5.0mV;hFE-65 max. at IC-1.0mA.
63	CS2643*	6	N-DPL	Si	L2r		Pt-.30W;hFE1/2-.80 min;VBE(1-2)-10mV;hFE-65 max. at IC-1.0mA.
64	CS29008*	6	N-DPL	Si	L2r		Pt-.30W;hFE1/2-.90 min;VBE(1-2)-5.0mV;hFE-200 max at IC-.10mA.
65	CS29009*	6	N-DPL	Si	L2r		Pt-.30W;hFE1/2-.80 min;VBE(1-2)-10mV;hFE-200 max at IC-.10mA.
66	CS29011*	6	N-DPL	Si	L2r		Pt-.30W;hFE1/2-.90 min;VBE(1-2)-5.0mV;hFE-300 max at IC-.10mA.
67	CS29012*	6	N-DPL	Si	L2r		Pt-.30W;hFE1/2-.80 min;VBE(1-2)-10mV;hFE-300 max at IC-.10mA.
68	D12A8	6	N-PL	Si	L17f		Pt(both sides)-500mW;hFE1/2-.60 min;VBE(1-2)-15mV max.
69	D12E026	6	N-PL	Si	L2b		hFE1/2-.60 min,1.0 max;VBE(1-2)-15mV max;Pc-600mW both.
70	D12E109	6	N-PL	Si	L2p		Pt(both sides)-300mW;VCBO-60V;IC-50mA;hFE1/2-.90 min.
71	D12E126	6	N-PL	Si	L2p		hFE1/2-.60 min,1.0 max;VBE(1-2)-15mV max;Pc-500mW both.
72	D12X084A	6	N	Si	X14		VCEO-15V max;hFE-30 min. at 10mA;ΔhFE-20%;ΔVBE±5.0mV.
73#	FSP1	6	N	Si			Pt-.80W;hFE1/2-.90 min;VCEO-20V min;ICBO-.60nA.
74	FT2974	6	N-DPL	Si	L2j		Pt-.3W ea;IC-30mA;hFE1/2-1 max;VBE(1-2)-2 max;hFE-60 min;VCBO-45V.
75	FT2978	6	N-DPL	Si	L2j		Pt-.3W ea;IC-30mA;hFE1/2-1 max;VBE(1-2)-2mV;hFE-60 min;VCBO-60V.
76	FT4020	6	P-DPE	Si	L17e		BVCEO-45V;20% hFE match;Cob-6.0pf;VBE(1-2)-5.0mV;ICBO-10nA max.
77	FT4021	6	P-DPE	Si	L17e		BVCEO-60V;20% hFE match;Cob-6.0pf;VBE(1-2)-5.0mV;ICBO-10nA max.
78	FT4022	6	P-DPE	Si	L17e		BVCEO-60V;20% hFE match;Cob-6.0pf;VBE(1-2)-5.0mV;ICBO-10nA max.
79	FT4023	6	P-DPE	Si	L17e		BVCEO-45V;10% hFE match;Cob-6.0pf;VBE(1-2)-3.0mV;ICBO-10nA max.
80	FT4024	6	P-DPE	Si	L17e		BVCEO-60V;10% hFE match;Cob-6.0pf;VBE(1-2)-3.0mV;ICBO-10nA max.
81	FT4025	6	P-DPE	Si	L17e		BVCEO-60V;10% hFE match;Cob-6.0pf;VBE(1-2)-3.0mV;ICBO-10nA max.
82	LDA400MP	6	N	Si	u34	P	Matched Pair LDA400 Pt-360mW;hFE 1/2-.90 min;VBE 1/2-10mV max;ΔVBE 1-2/ΔTA-10uV/°Cmax
83	LDA401MP*	6	N	Si	u34	P	Matched Pair LDA 401 Pt-360mW;hFE1/2-.90min;VBE1/2-10mVmax;ΔVBE1-2/ΔTA-10uV/°C max.
84	MD708A*	6	N-AN	Si	L66a		Pt-400mW(both sides);hFE1/2-.90 min;VBE1/2-5.0mV max;ton-16ns max.
85	MD708AF*	6	N-AN	Si	TO89		Pt-350mW(both sides);hFE1/2-.8 min;VBE1/2-10mV max;ton-16ns max.
86	MD708B*	6	N-AN	Si	L66a		Pt-400mW(both sides);hFE1/2-.90 min;VBE1/2-5.0mV max;ton-16ns max.
87	MD708BF*	6	N-AN	Si	TO89		Pt-350mW(both sides);hFE1/2-.8 min;VBE1/2-10mV max;ton-16ns max.
88	MD918A*	6	N-EA	Si	L66a		Pt-400mW(both sides);hFE1/2-.90 min;VBE1/2-5.0mV max;VCEO-15V.
89	MD918AF*	6	N-EA	Si	TO89		Pd(both sides)-350mW;VCEO-15V;hFE1/2-.90 min;VBE1-2-5.0mV max.
90	MD918B*	6	N-EA	Si	L66a		Pt-400mW(both sides);hFE1/2-.80 min;VBE1/2-10mV max;VCEO-15V.
91	MD918BF*	6	N-EA	Si	TO89		Pd(both sides)-350mW;VCEO-15V;hFE1/2-.80 min;VBE1-2-10mV max.
92	MD981	6	N-E	Si	L2d		Pt(both sides)-600mW;VCBO-60V;IC-500mA;hFE-35 min.
93	MD981F	6	N-E	Si	L2f		Pt(both sides)-350mW;VCBO-60V;IC-500mA;hFE-35 min.
94	MD982	6	P-E	Si	L17c		Pt(both sides)-600mW;VCBO-60V;IC-500mA;hFE-35 min.
95	MD982F	6	P-E	Si	L17d		Pt(both sides)-350mW;VCBO-60V;IC-500mA;hFE-35 min.
96	MD984	6	P-E	Si	L17v		Pt(both sides)-600mW;VCBO 40V;IC-200mA;hFE-25 min.
97	MD984F	6	P-E	Si	TO89		Pt(both sides)-350mW; VCBO 40V; IC-200mA; hFE-25 min.
98	MD990	6	P-E	Si	L17c		Pt(both sides)-600mW;VCBO-50V;IC-600mA;hFE-50 min.
99	MD1120	6	N	Si	L2w		hFE-30/120 at IC-100uA;VBE(1-2) max-10mV at IC-100uA.
100	MD1120F	6	N	Si	X22		hFE-30/120 at IC-100uA;(VBE1-VBE2) max.-10mV at IC-100uA.
101	MD1121	6	N	Si	L2w		hFE-30/120 at IC-100uA;VBE(1-2) max-10mV at IC-100uA.
102	MD1121F	6	N	Si	X22		hFE-30/120 at IC-100uA;(VBE1-VBE2) max.-10mV at IC-100uA.
103	MD1122	6	N	Si	L2w		hFE-30/120 at IC-100uA;VBE(1-2) max-10mV at IC-100uA.
104	MD1122F	6	N	Si	X22		hFE-30/120 at IC-100uA;(VBE1-VBE2) max-5.0mV at IC-100uA.
105	MD1126	6	N-E	Si	L2d		Pt(both sides)-400mW;VCBO-40V;IC-200mA;hFE-30 min.
106	MD1127	6	N-E	Si	L2d		Pt(both sides)-400mW;VCBO-40V;IC-200mA;hFE-30 min.
107	MD1128†	6	N-PE	Si	L2d		Pt(both sides)-400mW;VCBO-40V;hFE-25 min at IC-10mA and VCE-1V.
108	MD1129	6	N	Si	L2w		hFE-100/300 at IC-100uA;VBE1/2-5.0mV max. at IC-100uA.
109	MD1129F	6	N	Si	X22		hFE-100/300 at IC-100uA; VBE1/VBE2-5.0mV max at IC-100uA
110	MD1130	6	P	Si	L2w		hFE-100/300 at IC-100uA;VBE1/2-5.0mV max. at IC-100uA.

13. MISCELLANEOUS TRANSISTORS

LINE No.	2 TYPE No.	1 CATEGORY USE	STRUCTURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1	MD1130F	6	P	Si	X22		hFE-100/300 at IC-100uA; VBE1/VBE2-5.0mV max at IC-100uA
2	MD1131	6	N-E	Si	L2d		VCBO-30V;VCEO-15V;IC-50mA max;ft-600Mc min;hFE-50 min.at IC-1mA.
3	MD1131F	6	N-E	Si	L2f		VCBO-30V;VCEO-15V;IC-50mA max;ft-600Mc min;hFE-50 min.at IC-1mA.
4	MD1132	6	N-E	Si	L2w		hFE-50 min. at IC-1.0mA;VBE(1-2)-5.0mV max. at IC-1.0mA.
5	MD1132F	6	N-E	Si	X22		hFE-50 min. at IC-1.0mA;VBE(1-2)-5.0mV max. at IC-1.0mA.
6	MD1134	6	N-E	Si	RO131b		Pt-600mW(both sides);VCBO-40V;hFE-50 min. at IC-10mA and VCE-1V.
7	MD2369A*	6	N-AN	Si	L66a		Pt-600mW(both sides);hFE1/2-.90 min;VBE1/2-5.0mV max;ton-15ns max.
8	MD2369AF*	6	N-AN	Si	TO89		Pt-350mW(both sides);hFE1/2-.90 min;VBE1/2-5mV max;ton-15ns max.
9	MD2369B*	6	N-AN	Si	L66a		Pt-600mW(both sides);hFE1/2-.80 min;VBE1/2-10mV max;ton-15ns max.
10	MD2369BF*	6	N-AN	Si	TO89		Pt-350mW(both sides);hFE1/2-.80 min;VBE1/2-10mV max;ton-15ns max.
11	MD3250	6	P-AN	Si	L17c		Pt(both sides)600mW;BVCBO-50V;IC-50mA;hFE1/2-.90min.
12	MD3250A	6	P-AN	Si	L17c		Pt(both sides)-600mW;BVCBO-50V;IC-50mA;hFE1/2-.90 min;VBE(1-2)-5mVmax
13	MD3250AF	6	P-AN	Si	L17d		Pt(both sides)-350mW;BVCBO-50V;IC-50mA;hFE1/2-.90min;VBE(1-2)-5mVmax
14	MD3250F	6	P-AN	Si	L17d		Pt(both sides)-350mW;BVCBO-50V;IC-50mA;hFE1/2-.90min.
15	MD3251	6	P-AN	Si	L17c		Pt(both sides)-600mW;BVCBO-50V;IC-50mA;hFE1/2-.90min.
16	MD3251A	6	P-AN	Si	L17c		Pt(both sides)-600mW;BVCBO-50V;IC-50mA;hFE1/2-.90min;VBE(1-2)-5mVmax
17	MD3251AF	6	P-AN	Si	L17d		Pt(both sides)-350mW;BVCBO-50V;IC-50mA;hFE1/2-.90min;VBE(1-2)-5mVmax
18	MD3251F	6	P-AN	Si	L17d		Pt(both sides)-350mW;BVCBO-50V;IC-50mA;hFE1/2-.90min.
19	MD5000*	6	P-EA	Si	L66b		Pd(both sides)-400mW;VCEO-15V;hFE1/2-.70 min;VBE(1-2)-5.0mV max.
20	MD5000A*	6	P-EA	Si	L66b		Pd(both sides)-400mW;VCEO-15V;hFE1/2-.90 min;VBE(1-2)-5.0mV max.
21	MD5000B*	6	P-EA	Si	L66b		Pd(both sides)-400mW;VCEO-15V;hFE1/2-.80 min;VBE(1-2)-10mV max.
22	MD8001*	6	N-EA	Si	L2v		Pt-600mW;VBE1/2-15mV;IB1/2-1.0uA max;VCEO-40V max.
23	MD8002*	6	N-EA	Si	L2v		Pt-600mW;VBE1/2-15mV;IB1/2-1.0uA max;VCEO-50V max.
24	MD8003*	6	N-EA	Si	L2v		Pt-600mW;VBE1/2-15mV;IB1/2-1.0uA max;VCEO-60V max.
25	ME501Ø	6	N-PE	Si	L2		BVCEO-10V;BVEBO-3.0V;ICBO-10nA max at VCB-10V;hFE-60min/IC-100uA.
26	ME502	6	N-PE	Si	L3		Pair of 2N1893, Darlington Amplifier, hFE-750 min. at IC-10ma
27	ME504	6	N-PE	Si	L2		BVCBO-30V;BVEBO-3.0V;ICBO-10nA max./VCB-15V;hFE-100 min/IC-100uA
28	MEM551*	6	P	Si	L54		Pt-112mW;Yfs1/2-.80 min;Gfs(1-2)-200mV max;VGST-6.0V max.
29	MMF1	6	N	Si	X74	DH	Yfs1/2-.98 min;VGS(1-2)-5mV max;ΔVGS(1-2)/ΔT-10uV/deg.C.
30	MMF2	6	N	Si	X74	DH	Yfs1/2-.95 min;VGS(1-2)-5mV max;ΔVGS(1-2)/ΔT-10uV/deg.C.
31	MMF3	6	N	Si	X74	DH	Yfs1/2-.98 min;VGS(1-2)-5mV max;ΔVGS(1-2)/ΔT-25uV/deg.C.
32	MMF4	6	N	Si	X74	DH	Yfs1/2-.95 min;VGS(1-2)-5mV max;ΔVGS(1-2)/ΔT-25uV/deg.C.
33	MMF5	6	N	Si	X74	DH	Yfs1/2-.98 min;VGS(1-2)-5mV max;ΔVGS(1-2)/ΔT-50uV/deg.C.
34	MMF6	6	N	Si	X74	DH	Yfs1/2-.95 min;VGS(1-2)-5mV max;ΔVGS(1-2)/ΔT-50uV/deg.C.
35	MP2060-1	6	P	Ge	TO3	CØ	Matched Pair of MP2060; hFE-30 min., 45 max.
36	MP2060-2	6	P	Ge	TO3	CØ	Matched Pair of MP2060; hFE-40 min., 60 max.
37	MP2060-3	6	P	Ge	TO3	CØ	Matched Pair of MP2060; hFE-50 min., 75 max.
38	MP2060-4	6	P	Ge	TO3	CØ	Matched Pair of MP2060; hFE-60 min., 90 max.
39	MP2060-5	6	P	Ge	TO3	CØ	Matched Pair of MP2060; hFE-80 min., 120 max.
40	MP2060-6	6	P	Ge	TO3	CØ	Matched Pair of MP2060; hFE-100 min., 150 max.
41	MP2060-7	6	P	Ge	TO3	CØ	Matched Pair of MP2060; hFE-130 min., 200 max.
42	MP2061-1	6	P	Ge	TO3	CØ	Matched Pair of MP2061; hFE-30 min., 45 max.
43	MP2061-2	6	P	Ge	TO3	CØ	Matched Pair of MP2061; hFE-40 min., 60 max.
44	MP2061-3	6	P	Ge	TO3	CØ	Matched Pair of MP2061; hFE-50 min., 75 max.
45	MP2061-4	6	P	Ge	TO3	CØ	Matched Pair of MP2061; hFE-60 min., 90 max.
46	MP2061-5	6	P	Ge	TO3	CØ	Matched Pair of MP2061; hFE-80 min., 120 max.
47	MP2061-6	6	P	Ge	TO3	CØ	Matched Pair of MP2061; hFE-100 min., 150 max.
48	MP2061-7	6	P	Ge	TO3	CØ	Matched Pair of MP2061; hFE-130 min., 200 max.
49	MP2062-1	6	P	Ge	TO3	CØ	Matched Pair of MP2062; hFE-30 min., 45 max.
50	MP2062-2	6	P	Ge	TO3	CØ	Matched Pair of MP2062; hFE-40 min., 60 max.
51	MP2062-3	6	P	Ge	TO3	CØ	Matched Pair of MP2062; hFE-50 min., 75 max.
52	MP2062-4	6	P	Ge	TO3	CØ	Matched Pair of MP2062; hFE-60 min., 90 max.
53	MP2062-5	6	P	Ge	TO3	CØ	Matched Pair of MP2062; hFE-80 min., 120 max.
54	MP2062-6	6	P	Ge	TO3	CØ	Matched Pair of MP2062; hFE-100 min., 150 max.
55	MP2062-7	6	P	Ge	TO3	CØ	Matched Pair of MP2062; hFE-130 min., 200 max.
56	MP2063-1	6	P	Ge	TO3	CØ	Matched Pair of MP2063; hFE-30 min., 45 max.
57	MP2063-2	6	P	Ge	TO3	CØ	Matched Pair of MP2063; hFE-40 min., 60 max.
58	MP2063-3	6	P	Ge	TO3	CØ	Matched Pair of MP2063; hFE-50 min., 75 max.
59	MP2063-4	6	P	Ge	TO3	CØ	Matched Pair of MP2063; hFE-60 min., 90 max.
60	MP2063-5	6	P	Ge	TO3	CØ	Matched Pair of MP2063; hFE-80 min., 120 max.
61	MP2063-6	6	P	Ge	TO3	CØ	Matched Pair of MP2063; hFE-100 min., 150 max.
62	MP2063-7	6	P	Ge	TO3	CØ	Matched Pair of MP2063; hFE-130 min., 200 max.
63	MQ3799A*	6	P-EAØ	Si	L56c		Pt-.50W;hFE1/2-.90 min;VBE1/2-3mV max;ΔVBE(1-2)/ΔT-10uV/deg.C max.
64#	MT102B*	6	P-MOS	Si	L54a		ΔThreshold Voltage-200mV max;ΔrDS-60Ω max;Δgm-35uA/V typ.
65	NS7200	6	P-PL	Si	L8a		Pt-600mW;VBE1/2-3.0mV max;hFE1/2-1.0 max;ft-60Mc.
66	NS7201	6	P-PL	Si	L8a		Pt-600mW;VBE1/2-5.0mV max;hFE1/2-1.0 max;ft-60Mc.
67	NS7300	6	N-PL	Si	L2b		BVCBO-40V;Pt-600mW;hFE-100 min;VBE(1-2)-10mV;hFE1/2-.90-1.0
68	NS7301	6	N-PL	Si	L2b		BVCBO-40V;Pt-600mW;hFE-100 min;VBE(1-2)-10mV;hFE1/2-.80-1.0
69	NS7302	6	N-PL	Si	L2b		BVCBO-40V;Pt-600mW;hFE-100 min;VBE(1-2)-10mV;hFE1/2-.50-1.0
70	NS7303	6	N-PL	Si	L2j		BVCBO-40V;Pt-400mW;hFE-100 min;VBE(1-2)-10mV;hFE1/2-.90-1.0
71	NS7304	6	N-PL	Si	L2j		BVCBO-40V;Pt-400mW;hFE-100 min;VBE(1-2)-10mV;hFE1/2-.80-1.0
72	NS7305	6	N-PL	Si	L2j		BVCBO-40V;Pt-400mW;hFE-100 min;VBE(1-2)-10mV;hFE1/2-.50-1.0
73	SA2253*	6	N	Si	L8a		BVCBO-40V min;hFE1/hFE2-.7/1.0;VBE1-VBE2-20mV at IC-100uA
74	SA2644*	6	N-PE	Si	L2b		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-2mV max;ΔVBE(1-2)/ΔT-.50mV max.
75	SA2648*	6	N-PF	Si	L2b		Pt-.6W;hFE1/2-.9 min;VBE(1-2)-2mV max;ΔVBE1-2/ΔT-.3mV max.
76	SA2710*	6	N	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-2mV max;ΔVBE(1-2)/ΔT-3uV/deg.C.
77	SA2711*	6	N	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-2mV max;ΔVBE(1-2)/ΔT-3uV/deg.C.
78	SA2712*	6	N	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-3mV max;ΔVBE(1-2)/ΔT-5uV/deg.C.
79	SA2713*	6	N	Si	L2t		Pt-.6W;hFE1/2-.80 min;VBE(1-2)-3mV max;ΔVBE(1-2)/ΔT-5uV/deg.C.
80	SA2714*	6	N	Si	L2t		Pt-.6W;hFE1/2-.80 min;VBE(1-2)-5mV max;ΔVBE(1-2)/ΔT-10uV/deg.C.
81	SA2715*	6	N	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-2mV max;ΔVBE(1-2)/ΔT-3uV/deg.C.
82	SA2716*	6	N	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-2mV max;ΔVBE(1-2)/ΔT-3uV/deg.C.
83	SA2717*	6	N	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-3mV max;ΔVBE(1-2)/ΔT-5uV/deg.C.
84	SA2718*	6	N	Si	L2t		Pt-.6W;hFE1/2-.80 min;VBE(1-2)-5mV max;ΔVBE(1-2)/ΔT-10uV/deg.C.
85	SA2719*	6	N	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-2mV max;ΔVBE(1-2)/ΔT-3uV/deg.C.
86	SA2720*	6	N	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-3mV max;ΔVBE(1-2)/ΔT-5uV/deg.C.
87	SA2721*	6	N	Si	L2t		Pt-.6W;hFE1/2-.80 min;VBE(1-2)-5mV max;ΔVBE(1-2)/ΔT-10uV/deg.C.
88	SA2722*	6	N	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-2mV max;ΔVBE(1-2)/ΔT-3uV/deg.C.
89	SA2723*	6	N	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-3mV max;ΔVBE(1-2)/ΔT-5uV/deg.C.
90	SA2724*	6	N	Si	L2t		Pt-.6W;hFE1/2-.80 min;VBE(1-2)-5mV max;ΔVBE(1-2)/ΔT-10uV/deg.C.
91	SA2738*	6	N	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-1.5mV max;ΔVBE(1-2)/ΔT-3uV/deg.C.
92	SA2739*	6	N	Si	L2t		Pt-.6W;hFE1/2-.90 min;VBE(1-2)-2.5mV max;ΔVBE(1-2)/ΔT-5uV/deg.C.
93▼	SD5014*	6	P-MOSØ	Si	L53		Pt-325mW(each side) at 25°C case temp;yfs 1/2 .80min;VGS 1/2-200mV max.
94▼	SD5015*	6	P-MOSØ	Si	L54		Pt-325mW(each side) at 25°C case temp;yfs 1/2 .80min;VGS 1/2-200mV max.
95♦	SD5050*	6	N-MOSØ	Si	L53		Pt-325mW(each side) at 25°C case temp;yfs 1/2 .80min;VGS 1/2-200mV max.
96♦	SD5051*	6	N-MOSØ	Si	L54		Pt-325mW(each side) at 25°C case temp;yfs 1/2 .80min;VGS 1/2-200mV max.
97▼#	SFT918	6	N-PL	Si	L2b		Pt-300mW each;ft-600 MHz min;hFE-50 min.
98▼#	SFT918A	6	N-PL	Si	L2b		Pt-300mW each;ft-600 MHz min;hFE 1/2-.90 min;VBE (1-2)-5.0mV max.
99▼#	SFT918B	6	N-PL	Si	L2b		Pt-300mW each;ft-600 MHz min;hFE 1/2-.80 min;VBE (1-2)-10mV max.
100♦#	SL301A*	6	N	Si	L44a		BVCBO-35V;BVCEO-16V;IC-50mA;hFE(1-2)-900m;VCE-600mV;ΔVBE(1-2)-3.0mV.
101▼#	SL301AE*	6	N	Si	L44b		BVCBO-35V;BVCEO-16V;IC-50mA;hFE(1-2)-900m;VCE-600mV;ΔVBE(1-2)-3.0mV.
102♦#	SL301B*	6	N	Si	L44a		BVCBO-30V;BVCEO-12V;IC-50mA;hFE(1-2)-500m;VCE-1.0V;ΔVBE(1-2)-12mV.
103▼#	SL301BE*	6	N	Si	L44b		BVCBO-30V;BVCEO-12V;IC-50mA;hFE(1-2)-500m;VCE-1.0V;ΔVBE(1-2#-12mV.
104▼#	SL301C*	6	N	Si	L44a		BVCBO-25V;BVCEO-10V;IC-50mA;VCE-600mV.
105▼#	SL301CE*	6	N	Si	L44b		BVCBO-25V;BVCEO-10V;IC-50mA;VCE-600mV.
106▼#	SL301E*	6	N	Si	L44a		BVCBO-30V;BVCEO-12V;IC-50mA;hFE(1-2)-800m;VCE-600mV;ΔVBE(1-2)-5.0mV.
107▼#	SL301EE*	6	N	Si	L44b		BVCBO-30V;BVCEO-12V;IC-50mA;hFE(1-2)-800m;VCE-600mV;ΔVBE(1-2)-5.0mV.
108▼#	SL303AE*	6	N	Si			BVCBO-35V;BVCEO-16V;IC-50mA;hFE(1-2)-900m;VCE-600mV;ΔVBE(1-2)-3.0mV.
109▼#	SL303AT*	6	N	Si			BVCBO-35V;BVCEO-16V;IC-50mA;hFE(1-2)-900m;VCE-600mV;ΔVBE(1-2)-3.0mV.
110▼#	SL303BE*	6	N	Si			BVCBO-30V;BVCEO-12V;IC-50mA;hFE(1-2)-500m;VCE-1.0V;ΔVBE(1-2)-12mV.

13. MISCELLANEOUS TRANSISTORS

LINE No.	2 TYPE No.	1 USE	CATEGORY STRUCTURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1▼#	SL303BT*	6	N	Si	L43a		BVCBO-30V;BVCEO-12V;IC-50mA;hFE(1-2)-500m;VCE-1.0V;ΔVBE(1-2)-12mV.
2▼#	SL354BE*	6	N	Si	L67		BVCBO-30V;BVCEO-12V;IC-50mA;hFE(1-2)-500m;VCE-1.0V;ΔVBE(1-2)-12mV.
3▼#	SL354BF*	6	N	Si	L67		BVCBO-30V;BVCEO-12V;IC-50mA;hFE(1-2)-500m;VCE-1.0V;ΔVBE(1-2)-12mV.
4	SMT100	6	P	Si	L17a		BVCEO-45V;IC-30mA max;Pt-.60W;VBE(1-2)-20mV;Cob-6.0pf.
5	SMT101	6	P	Si	L17a		BVCEO-45V;IC-30mA max;Pt-.60W;VBE(1-2)-20mV;Cob-6.0pf.
6	SMT102	6	P	Si	L17a		BVCEO-45V;IC-30mA max;Pt-.60W;VBE(1-2)-10mV;hFE1/hFE2-.80 min.
7	SMT103	6	P	Si	L17a		BVCEO-45V;IC-30mA max;Pt-.60W;VBE(1-2)-10mV;hFE1/hFE2-.80 min.
8	SMT104	6	P	Si	L17a		BVCEO-45V;IC-30mA max;Pt-.60W;VBE(1-2)-5.0mV;hFE1/hFE2-.90 min.
9	SMT105	6	P	Si	L17a		BVCEO-45V;IC-30mA max;Pt-.60W;VBE(1-2)-5.0mV;hFE1/hFE2-.90 min.
10	SP8302	6	N-PL	Si	L8a		Pc-.50W;BVCBO-100V;hFE-75 min/IC-10mA;ICBO-.025mA max.
11	SP8303	6	N-PL	Si	L8a		Pc-.50W;BVCBO-100V;hFE-35 min/IC-10mA;ICBO-.025mA max.
12	SP8304	6	N-PL	Si	L8a		Pc-.30W;BVCBO-40V;hFE-30 min/IC-10mA;ICBO-.025uA max.
13	SP8307	6	P-PL	Si	L8a		Pc-.30W;BVCBO-20V;hFE-35 min/IC-10mA;ICBO-.01uA max.
14	SP8309	6	N-PL	Si	L8a		Pc-.50W;BVCBO-75V;hFE-40 min/IC-150mA;ICBO-.01uA max.
15	SP8310	6	N-PLØ	Si	L8a		Pc-.50W;BVCBO-75V;hFE-100 min/IC-150mA;ICBO-.01uA max.
16	SP8311	6	N-PL	Si	L8a		Pc-.50W;BVCBO-120V;hFE-40 min/IC-150mA;ICBO-.01uA max.
17	SP10801	6	N-DPL	Si	TO89		hFE1/hFE2-0.8minΔ VBE1-VBE2-1.6mV max,NF-4.0db max
18	SP10810	6	P-DPE	Si	TO89		hFE1/hFE2-0.8minΔ VBE1-VBE2-4.0mV max,hFE-35min at 10mA-1.0V
19	SU2074*	6	N	Si	L21		Pt-300mW; gm1/2-.95 min;VGS(1-2)-15mV max;ΔVGS(1-2)/ΔT-10uV/Deg.C.
20	SU2075*	6	N	Si	L21		Pt-300mW; gm1/2-.95 min;VGS(1-2)-15mV max;ΔVGS(1-2)/ΔT-15uV/Deg.C.
21	SU2076*	6	N	Si	L21		Pt-250mW; gm1/2-.95 min;VGS(1-2)-15mV max;ΔVGS(1-2)/ΔT-10uV/Deg.C.
22	SU2077*	6	N	Si	L21		Pt-250mW; gm1/2-.95 min;VGS(1-2)-15mV max;ΔVGS(1-2)/ΔT-25uV/Deg.C.
23	SU2078*	6	N	Si	L21		Pt-250mW; gm1/2-.95 min;VGS(1-2)-15mV max;ΔVGS(1-2)/ΔT-35uV/Deg.C.
24	SU2079*	6	N	Si	L21		Pt-250mW; gm1/2-.95 min;VGS(1-2)-15mV max;ΔVGS(1-2)/ΔT-60uV/Deg.C.
25	SU2080*	6	N	Si	L21		Pt-250mW; gm1/2-.90 min;VGS(1-2)-15mV max;ΔVGS(1-2)/ΔT-35uV/Deg.C.
26	SU2081*	6	N	Si	L21		Pt-250mW; gm1/2-.90 min;VGS(1-2)-15mV max;ΔVGS(1-2)/ΔT-60uV/Deg.C.
27	SU2098*	6	N	Si	L21		Pt-.3W;gm1/2-.95 min;VGS(1-2)-5mV;ΔVGS(1-2)/ΔT-10uV/deg.C max.
28	SU2098A*	6	NØ*	Si	R131		Pt-300mW;gm1/2-.95 min;VGS(1-2)-5mV;ΔVGS(1-2)/ΔT-10uV/deg.C.max.
29	SU2098B*	6	NØ*	Si	R131		Pt-300mW;gm1/2-.95 min;VGS(1-2)-5mV;ΔVGS(1-2)/ΔT-25uV/deg.C.max.
30	SU2099*	6	N	Si	L21		Pt-.3W;gm1/2-.95 min;VGS(1-2)-5mV;ΔVGS(1-2)/ΔT-25uV/deg.C max.
31	SU2099A*	6	NØ*	Si	R131		Pt-300mW;gm1/2-.95 min;VGS(1-2)-5mV;ΔVGS(1-2)/ΔT-5.0uV/deg.C.max.
32	TD100*	6	N-PL	Si	L2u		Pt-.40W;hFE1/2-.90 min;VBE(1-2)-5mV max;ΔVBE(1-2)/ΔT-20uV/deg.C max
33	TD101*	6	N-PL	Si	L2u		Pt-.40W;hFE1/2-.90 min;VBE(1-2)-10mV max;ΔVBE(1-2)/ΔT-30uV/deg.C max
34▼	TD200*	6	NØ	Si	L2z		ft-30MHz min;hFE at IC 100uA-120 min;hFE 1/2-.90 min;VBE(1-2) 5.0mV max.
35▼	TD201*	6	NØ	Si	L2z		ft-30MHz min;hFE at IC 100uA-120 min;hFE 1/2-.90 min;VBE(1-2) 10mV max.
36▼	TD202*	6	N	Si	L2z		ft-30MHz min;hFE at IC 10mA-150 min;BVCBO-60V;VBE(SAT)-.80V max.
37▼	TD250*	6	NØ	Si	L2z		ft-30MHz min;hFE at IC 100uA-120 min;hFE 1/2-.90 min;VBE(1-2) 3.0mV max.
38	TD400*	6	P-PLØ	Si	L17m		Pt-400mW;hFE1/2-.90min;VBE1/2-5.0mV max;ΔVBE(1-2)/ΔT-20uV/Deg.C.
39	TD401*	6	P-PLØ	Si	L17m		Pt-400mW;hFE1/2-.90min;VBE1/2-10mV max;ΔVBE(1-2)/ΔT-30uV/Deg.C.
40	TD402*	6	P-PL†	Si	L17m		Pt-400mW;hFE-60min;VBE.80Vmax;Sat.Res.-20-ohms max.
41▼	TD500*	6	PØ	Si	L17w		ft-20MHz min;hFE at IC 100uA-120 min;hFE 1/2-.90 min;VBE(1-2) 5.0mV max.
42▼	TD501*	6	PØ	Si	L17w		ft-20MHz min;hFE at IC 100uA-120 min;hFE 1/2-.90 min;VBE(1-2) 10mV max.
43▼	TD502*	6	P	Si	L17w		ft-20MHz min;BVCBO-40V;VCE(SAT)-.20V max;VBE(SAT)-.80V max.
44▼	TD550*	6	PØ	Si	L17w		ft-20MHz min;hFE at IC 100uA-120 min;hFE 1/2-.90 min;VBE(1-2) 3.0mV max.
45	TIS25	6	N-PE	Si	L21a		FET;BVGSS-50V;IDSS-8.0mA max;Yfs match 5.0%;Yfs-1500umhos min.
46	TIS26	6	N-PE	Si	L21a		FET;BVGSS-50V;IDSS-8.0mA max;Yfs match 10%;Yfs-1500umhos min.
47	TIS27	6	N-PE	Si	L21a		FET;BVGSS-50V;IDSS-8.0mA max;Yfs match 20%;Yfs-1500umhos min.
48	TIS68*	6	N-PE	Si	TO92		Pt-360mW;Yfs1/2-.95 min;VGS(1-2)-5.0mV max;IGSS1/2-10nA max.
49	TIS69*	6	N-PE	Si	TO92		Pt-360mW;Yfs1/2-.90 min;VGS(1-2)-10mV max;IGSS1/2-10nA max.
50	TIS70*	6	N-PE	Si	TO92		Pt-360mW;Yfs1/2-.80 min;VGS(1-2)-15mV max;IGSS1/2-10nA max.
51	U231*	6	NØ	Si	L58		Pt-300mW;IG(1-2)-10nAmax;VGS(1-2)-5.0mVmax;VGS(1-2)ΔT-10uV/°Cmax.
52	U232*	6	NØ	Si	L58		Pt-300mW;IG(1-2)-10nAmax;VGS(1-2)-10mVmax;VGS(1-2)ΔT-25uV/°Cmax.
53	U233*	6	NØ	Si	L58		P5-300mW;IG(1-2)-10nAmax;VGS(1-2)-15mVmax;VGS(1-2)ΔT-50uV/°Cmax.
54	U234*	6	NØ	Si	L58		Pt-300mW;IG(1-2)-10nAmax;VGS(1-2)-20mVmax;VGS(1-2)ΔT-75uV/°Cmax.
55	U235*	6	NØ	Si	L58		Pt-300mW;IG(1-2)-10nAmax;VGS(1-2)-25mVmax;VGS(1-2)ΔT-100uV/°Cmax.
56	U248*	6	NØ	Si	L58a		Pt-.50W;IDSS1/2-.95 min;Gfs1/2-.97 min;VGS1-2-5mV.
57	U248A*	6	NØ	Si	L58a		Pt-.50W;IDSS1/2-.95 min;Gfs1/2-.97 min;VGS1-2-5mV.
58	U249*	6	NØ	Si	L58a		Pt-.50W;IDSS1/2-.95 min;Gfs1/2-.97 min;VGS1-2-5mV.
59	U249A*	6	NØ	Si	L58a		Pt-.50W;IDSS1/2-.95 min;Gfs1/2-.97 min;VGS1-2-5mV.
60	U250*	6	NØ	Si	L58a		Pt-.50W;IDSS1/2-.95 min;Gfs1/2-.95 min;VGS1-2-10mV.
61	U250A*	6	NØ	Si	L58a		Pt-.50W;IDSS1/2-.95 min;Gfs1/2-.95 min;VGS1-2-10mV.
62	U251*	6	NØ	Si	L58a		Pt-.50W;IDSS1/2-.95 min;Gfs1/2-.95 min;VGS1-2-15mV.
63	U251A*	6	NØ	Si	L58a		Pt-.50W;IDSS1/2-.95 min;Gfs1/2-.95 min;VGS1-2-15mV.
64	U252*	6	N	Si	TO78		Pt-500mW;IG(1-2)-20nA max.;IDSS(1-2)-.95 min.VGS(1-2)10mV max.
65	U253*	6	N	Si	TO78		Pt-500mW;IG(1-2)-20nA max.;IDSS(1-2)-.95 min.VGS(1-2)15mV max.
66	UCX2910*	6	NΔØ	Si	L2d		Pt-.75W;hFE1/2-.90 min;VBE(1-2)-1mV;tr-20ns;tf-20ns.
67	UPA15	6	N-PE	Si	L5		Pc-.6W max;hFE1/hFE2-.8 min;hFE-40 min at 1mA;VBE1/VBE2-10W max.
68#	ZDT11	6	N-PL	Si	L2h		ΔVEC-100uV max; VEC-2.0mV.
69#	ZDT20	6	N-PL	Si	L2h		hFE1/hFE2-1.0 max; VBE1-VBE2-20mV max.
70#	ZDT21	6	N-PL	Si	L2h		hFE1/hFE2-1.0 max; VBE1-VBE2-5.0mV max.
71#	ZDT40	6	N-PL	Si	L2d		PL-500mW(both sides);Pair of ZT 82.
72#	ZDT41	6	N-PL	Si	L2d		PL-500mW(both sides);Pair of ZT 84.
73#	ZDT42	6	N-PL	Si	L2d		PL-500mW(both sides);VBE(1-2)-5mV max;hFE1/hFE2-1.0 max.
74#	ZDT44	6	N-PL	Si	L2d		PL-500mW(both sides);VBE(1-2)-10mV max;hFE1/hFE2-1.0 max.
75#	ZDT45	6	N-PL	Si	L2d		PL-500mW(both sides);VBE(1-2)-10mV max;hFE1/hFE2-1.0 max.
76	1N4378	7	N	Si	X69		Pd-50mW;ID-25nA max;IL-1mA min;tr-2usec max;VCE-30V;VEC-6V.
77	JAN1N4378	7	NΔ	Si	X69		Pt-50mW;ID-10nAmax;IL-9.0mAmax;tr-1.5uSmax;VCE-50V;VEC-8V.
78	2N986	7	N	Si	X8		Pc-.50W max; BVCBO-100V; Photo-Sens-3.1uA/fc max.
79	JAN2N986	7	N	Si	X8		Pc-500mW;BVCBO-100Vmax;Photo Sens-3.0uA/fc;Idark-.01uAmax.
80	2N2452	7	N	Si	X8		Pc-.50W max; BVCBO-100V; Photo-Sens-10.3uA/fc max.
81#	BPX25	7	N-PE	Si	X29b		Pt-.30W;ICE(L)-5.0mA;ICE(D)-1.0uA max;Sens.-650uA/mW/cm sq.
82#	BPX29	7	N-PE	Si	X29	AØ	Pt-.30W;ICE(L)-1.0mA;ICE(D)-1.0uA max;Sens-130uA/mW/cm. sq.
83#	BPX30	7	NΔ	Si		A	Pt-500mW;BVCEO-30V;ICEO-1.0uAmax;ICM-40mA;Sens-100mA/mW/CM2.
84#	BPY60	7	N-DPL	Si	X8c	AØ	Pt-.87W;Sens-250uA/mW/sq.cm;tr light-1.0usec max;tf light-10usec max.
85#	BPY61/I	7	N-PL	Si	X69		Pt-50mW;IC-.50mA at B-1000lux;Spectral Sensitivity-1.0uM max.
86#	BPY61/II	7	N-PL	Si	X69		Pt-50mW;IC-1.5mA at B-1000lux;Spectral Sensitivity-1.0uM max.
87#	BPY61/III	7	N-PL	Si	X69		Pt-50mW;IC-3.0mA at B-1000lux;Spectral Sensitivity-1.0uM max.
88#	BPY62/I	7	NPE	Si	X8a	A§	Pt-.20W;IC-1.0mAmin.atB-1000lux;Sens.-1.0uM;VCE-15V.
89#	BPY62/II	7	NPE	Si	X8a	A§	Pt-.20W;IC-2.0mAmin.atB-1000lux;Sens.-1.0uM;VCE-15V.
90#	BPY62/III	7	NPE	Si	X8a	A§	Pt-.20W;IC-4.0mAmin.atB-1000lux;Sens.-1.0uM;VCE-15V.
91#	BPY65	7	N-DPL	Si	X8	AØ	Pt-.5W;Sens.-250uA/mW/cm;tr light-1.0usec max;tf light-10usec max.
92#	E1P	7	P	Ge			Idark-10uA; Ilight-10mA; Sens.-.30uA/lumen.
93	FF102*	7	N-EΔ	Si	TO72 D	H	IG(light)-7.5nA/FC min;ID(light)-80uA/FC typ;tr-30nsec;tf-50nsec.
94	FF409*	7	N-EΔ	Si	TO18 D	B	IG(light)-8.0nA/FC min;ID(light)-144uA/FC typ;tr-25nsec;tf-40nsec.
95	FF600*	7	N-EΔ	Si	TO72 D	H	IG(light)-75nA/FC min;ID(light)-800uA/FC typ;tr-30nsec;tf-50nsec.
96	FPM100	7	N-PL	Si	X52		Pt-75mW max;ID-.10uA max;IL-.80mA max;BVCEO-5.0V min.
97	FPO100	7	N-PL	Si	X52a		Pt-75mW max;ID-.10uA max;IL-.80mA max.
98	FPT100	7	N-PLΔ		R124	A	Pt-100mWmax;ID-101nAmax;IC-25mA;tr-3.0usec.
99#	GPT	7	P	Ge			Idark-2.0mA max; Ilight-50mA; Sens.-.30uA/lm.
100▼	GS100	7	N-PLΔ	Si	u54		Pt-50mW;IL-1.0mA min;ID-1.0nA;VCE (SAT)-.30V;tr-7.0us max;tf-40us max.
101▼	GS102	7	N-PLΔ	Si	u54		Pt-50mW;IL-.10mA min;ID-1.0nA;VCE (SAT)-.30V;tr-7.0us max;tf-40us max.
102▼	GS170	7	N-PLΔ	Si	u54		Pt-50mW;IL-1.0mA min;ID-20nA;VCE (SAT)-.30V;tr-7.0us max;tf-40us max.
103▼	GS172	7	N-PLΔ	Si	u54		Pt-50mW;IL-.10mA min;ID-20nA;VCE (SAT)-.30V;tr-7.0us max;tf-40us max.
104▼	GS300	7	N-PLΔ	Si	x90a		Pt-50mW;IL-1.0mA min;ID-1.0nA;VCE (SAT)-.30V;tr-7.0us max;tf-40us max.
105▼	GS302	7	N-PLΔ	Si	x90a		Pt-50mW;IL-.10mA min;ID-1.0nA;VCE (SAT)-.30V;tr-7.0us max;tf-40us max.
106▼	GS370	7	N-PLΔ	Si	x90a		Pt-50mW;IL-1.0mA min;ID-20nA;VCE (SAT)-.30V;tr-7.0us max;tf-40us max.
107▼	GS372	7	N-PLΔ	Si	x90a		Pt-50mW;IL-.10mA min;ID-20nA;VCE (SAT)-.30V;tr-7.0us max;tf-40us max.
108▼	GS400	7	N-PLΔ	Si	x90		Pt-50mW;IL-.10mA min;ID-1.0nA;VCE (SAT)-.30V;tr-5.0us max;tf-15us max.
109▼	GS403	7	N-PLΔ	Si	x90		Pt-50mW;IL-.50mA min;ID-1.0nA;VCE (SAT)-.30V;tr-8.0us max;tf-12us max.
110▼	GS420	7	N-PLΔ	Si	x90		Pt-50mW;IL-1.0mA min;ID-1.0nA;VCE (SAT)-.30V;tr-2.0us max;tf-12us max.

13. MISCELLANEOUS TRANSISTORS

LINE No.	2 TYPE No.	1 CATEGORY USE	STRUCTURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1▼	GS422	7	N-PLΔ	Si	x90		Pt-50mW;IL-5.0mA min;ID-1.0nA;VCE (SAT)-.30V;tr-3.0us max;tf-8.0us max.
2▼	GS423	7	N-PLΔ	Si	x90		Pt-50mW;IL-10mA min;ID-1.0nA;VCE (SAT)-.30V;tr-1.5us max;tf-12us max.
3▼	GS470	7	N-PLΔ	Si	x90		Pt-50mW;IL-1.0mA min;ID-20nA;VCE (SAT)-.30V;tr-3.0us max;tf-12us max.
4♦	GS600	7	N-PLΔ	Si	x29		Pt-400mW;IL-20mA min;ID-5.0nA;VCE (SAT)-.30V;tr-7.0us max;tf-50us max.
5	GS600L	7	N-PLΔ	Si	X29		Pt-.25W; IL-30mA; ID-10nA; VCE-10V max; Sens-75uA/fc
6	GS601	7	N-PLΔ	Si	X29		Pt-.25W; IL-20mA; ID-20nA; VCE-5.0V max; Sens-50uA/fc
7▼	GS603	7	N-PLΔ	Si	x29		Pt-400mW;IL-5.0mA min;ID-5.0nA;VCE (SAT)-.30V;tr-7.0us max;tf-50us max.
8▼	GS606	7	N-PLΔ	Si	x29		Pt-400mW;IL-30mA min;ID-5.0nA;VCE (SAT)-.30V;tr-7.0us max;tf-50us max.
9▼	GS609	7	N-PLΔ	Si	x29		Pt-400mW;IL-50mA min;ID-5.0nA;VCE (SAT)-.30V;tr-7.0us max;tf-50us max.
10♦	GS610	7	N-PLΔ	Si	x29		Pt-150mW;IL-1.0mA min;ID-1.0nA;VCE (SAT)-.30V;tr-2.0us max;tf-30us max.
11	GS611	7	N-PLΔ	Si	X29		Pt-.25W; IL-3.0mA;ID-(12V)-1.0nA;VCE-12V max;Sens-7.5uA/fc
12▼	GS612	7	N-PLΔ	Si	x29		Pt-150mW;IL-.10mA min;ID-1.0nA;VCE (SAT)-.30V;tr-1.5us max;tf-40us max.
13▼	GS614	7	N-PLΔ	Si	x29		Pt-150mW;IL-5.0mA min;ID-1.0nA;VCE (SAT)-.30V;tr-1.5us max;tf-2.0us max.
14	GS660	7	N-PLΔ	Si	X29		Pt-.25W; IL-40mA; ID-10nA; VCE-5.0V max; Sens-100uA/fc
15♦	GS670	7	N-PLΔ	Si	x29		Pt-150mW;IL-1.0mA min;ID-20nA;VCE (SAT)-.30V;tr-2.0us max;tf-30us max.
16▼	GS680	7	N-PLΔ	Si	x29		Pt-400mW;IL-20mA min;ID-5.0nA;VCE (SAT)-.30V;tr-7.0us max;tf-50us max.
17▼	GS683	7	N-PLΔ	Si	x29		Pt-400mW;IL-5.0mA min;ID-5.0nA;VCE (SAT)-.30V;tr-7.0us max;tf-50us max.
18	L14A502	7	N-PL	Si	X9		Pt-300mW max;BVCBO-45V;BVCEO-45V;BVEBO-5.0;IL-50mA max;ID-10nA max
19	LS400	7	NΔ	Si	X69		Pd-50mW;ID-25nAmax;IL-800uAmin;tr2.0usec;BVceo50V;BVeco6.0V.
20	LS600	7	NΔ	Si			Pd-50mW;ID-25nAmax;IL-800uAmin;tr2.0usec;BVceo50V;BVeco6.0V.
21▼#	MEL11	7	N	Si	R110		Pt-360mW;BVCBO-40V;Sens-250uA/mW/Sq. cm. min;Idark-.10uA max.
22▼#	MEL12	7	N	Si	R110		Pt-360mW;BVCBO-60V;Sens-500uA/mW/Sq. cm. min;Idark-.10uA max.
23	MRD100*	7	NANTΔ	Si	u43	B	Pd-50mW;BVCBO-80V;BVCEO-40V;ICEO(dark)-100nAmax;Sens.Rad.CEO-100nA/mW/sq.cm.
24	MRD150*	7	NANTΔ	Si	u43a		Pd-50mW;BVCBO-80V;BVCEO-40V;ICEO(dark)-100nAmax;Sens.Rad.CEO-100nA/mW/sq.cm.
25	MRD200	7	N-AN	Si	X83		Pt-.05W;ICEO(dark)-25nA;BVCEO-50V;Sens.-2.0uA/lum/ft.sq. min.
26	MRD210	7	N	Si	X83a		BVCEO-50V;ICEO-25nA at 25deg C;SICE-.4uA/lum/ft-2min;LS-.8um typ.
27	MRD250	7	N	Si	X83a		BVCEO-50V;ICEO-25nA at 25deg C;SICE-.8uA/lum/ft-2min;LS-.8um typ.
28	MRD300	7	N-AN	Si	X8d	A	Pt-.25W;ICEO(dark)-25nA;BVCEO-50V;Sens.-4.0uA/lum/ft.sq. min.
29	MRD310	7	N	Si	X83a		BVCEO-50V;ICEO-25nA at 25deg C;SICE-1uA/lum/ft-2min;LS-.8um typ.
30	MRD450*	7	NANTΔ	Si	u52		Pd 100mW;BVCEO-40V;ICEO(dark)-100nA max;Sens.Rad.CEO-100nA/mW/sq.cm.
31▼	MRD600	7	N	Si	X83b		Detector;SRCE-40uA/mW/cm 2 min;IL-800uA min;Pd-50mW;VCEO-50V.
32	OCP70	7	P	Ge	R9		Pt-25mW;BVCEO-7.5V;IC-20mA; Sens-10uA/fc
33	OCP71	7	P	Ge	R9		Pt-50mW; BVCEO-25V; IC-20mA; Sens-.30A/lm
34#	OS14	7	P-A	Ge	X6		VCE-20V max;IC-50mA max;Pt-.15W;ID-250uA;IL-2.5mA at 500 Lux.
35#	OS18	7	N-D	Si	X6		VCE-30V max;IC-20mA max;Pt-.40W;ID-.20uA;IL-50uA at 500 Lux.
36#	P20	7	N-PL	Si	X6	Ø	Pt-.87Wmax;BVCBO-80Vmin;BVEBO-7Vmin;Sens-20uA/mW/cm min.
37#	P21	7	N-PL	Si	X8	Ø	Pt-.50Wmax;BVCBO-80Vmin;BVEBO-7Vmin;Sens-20uA/mW/cm min.
38	P102*	7	P-DØ	Si	X8		IGSS(dk)-10nA max;Sin-.40uA/mW/cm2 min;tr/tf-.10/1.5usec typ.
39	P236	7	N	Si	X68	DH	Pt-300mW;Sens.-3uA/mW/cm.sq.;Ig(DARK)-30pA;IGSS(DARK)-.25nA;Vp-2V.
40	P237	7	N	Si	X68	DH	Pt-300mW;Sens.-3uA/mW/cm.sq.;Ig(DARK)-30pA;IGSS(DARK)-.25nA;Vp-3V.
41	P238	7	N	Si	X68	DH	Pt-300mW;Sens.-3uA/mW/cm.sq.;Ig(DARK)-30pA;IGSS(DARK)-.25nA;Vp-5V.
42	PFN3066*	7	N-E	Si	TO18 D	B	IGSS(light)-3.0nA/fc; ID(light)-2.0uA/fc.
43	PFN3069*	7	N-E	Si	TO18 D	B	IGSS(light)-8.0nA/fc; ID(light)-14uA/fc.
44	PFN3458*	7	N-E	Si	TO18 D	B	IGSS(light)-10nA/fc; ID(light)-35uA/fc.
45#	PH241N*	7	N	Si	TO18		IGSS(light)-8.0nA/fc;ID(light)-10uA/FC.
46#	PH242N*	7	N	Si	TO18		IGSS(light)-8.0nA/fc;ID(light)-16uA/FC.
47#	PH243N*	7	N	Si	TO18		IGSS(light)-8.0nA/fc;ID(light)-25uA/FC.
48#	PH244N*	7	N	Si	TO18		IGSS(light)-8.0nA/fc;ID(light)-40uA/FC.
49	SP1	7	P-E	Si	X69		Pt-.50W;ID-100nA max;Sensitivity-.50mA typ.
50	SP2	7	P-E	Si	X69		Pt-.50W;ID-100nA max;Sensitivity-1.5mA typ.
51	SP3	7	P-E	Si	X69		Pt-.50W;ID-100nA max;Sensitivity-3.0mA typ.
52	TIL58	7	NPLΔ	Si	X69a		Pd-50mW;ID-25nAmax;IL-1.0mAmin;tr-2.0usec;BVceo-50V;BVeco-8.0V;tf-15usec.
53	TIL601	7	NΔ	Si			Pd-50mW;ID-25nAmax;IL-500uAmin;tr2.0usec;BVceo50V;BVeco7.0V.
54	TIL602	7	NΔ	Si			Pd-50mW;ID-25nAmax;IL-2.0mAmin;tr2.0usec;BVceo50V;BVeco7.0V.
55	TIL603	7	NΔ	Si			Pd-50mW;ID-25nAmax;IL-4.0mAmin;tr2.0usec;BVceo50V;BVeco7.0V.
56	TIL604	7	NΔ	Si			Pd-50mW;ID-25nAmax;IL-7.0mAmin;tr2.0usec;BVceo50V;BVeco7.0V.
57	TIL605	7	NΔ	Si			Pd-50mW;ID-25nAmax;IL-500uAmin;tr2.0usec;BVceo50V;BVeco7.0V.
58	TIL606	7	NΔ	Si			Pd-50mW;ID-25nAmax;IL-2.0mAmin;tr2.0usec;BVceo50V;BVeco7.0V.
59	TIL607	7	NΔ	Si			Pd-50mW;ID-25nAmax;IL-4.0mAmin;tr2.0usec;BVceo50V;BVeco7.0V.
60	TIL608	7	NΔ	Si			Pd-50mW;ID-25nAmax;IL-7.0mAmin;tr-2.0usec;BVceo-50V;BVeco-7.0V.
61	TIL609	7	NΔ	Si			Pd-50mW;ID-25nAmax;IL-500uAmin;tr-2.0usec;BVceo-50V;BVeco-7.0V.
62	TIL610	7	NΔ	Si			Pd-50mW;ID-25nAmax;IL-2.0mAmin;tr-2.0usec;BVceo-50V;BVeco-7.0V.
63	TIL611	7	NΔ	Si			Pd-50mW;ID-25nAmax;IL-4.0mAmin;tr-2.0usec;BVceo-50V;BVeco-7.0V.
64	TIL612	7	NΔ	Si			Pd-50mW;ID-25nAmax;IL-7.0mAmin;tr-2.0usec;BVceo-50V;BVeco-7.0V.
65	TIL613	7	NΔ	Si			Pd-50mW;ID-25nAmax;IL-500uAmin;tr-2.0usec;BVceo-50V;BVeco-7.0V.
66	TIL614	7	NΔ	Si			Pd-50mW;ID-25nAmax;IL-2.0mAmin;tr-2.0usec;BVceo-50V;BVeco-7.0V.
67	TIL615	7	NΔ	Si			Pd-50mW;ID-25nAmax;IL-4.0mAmin;tr-2.0usec;BVceo-50V;BVeco-7.0V.
68	TIL616	7	NΔ	Si			Pd-50mW;ID-25nAmax;IL-7.0mAmin;tr-2.0usec;BVceo-50V;BVeco-7.0V.
69	TSP3	7	P-E	Si	X8b	A	Pt-.20W;ID-100nA max;Spectral Sensitivity-.75uM max.
70▼#	ZM100	7	N	Si	X8d	A	Pd 300mW;IC(Dark)-1.0uA;IL-1.0mA/lumen/sq.A;Angular Alignment 10° max ton,off-400us.
71	2N489	9	P	Si	R33		Pt-.45W;n-.62 max;RBB-6.8k ohms max;IV-8.0mA min;Ip-20uA max.
72	2N489A	9	P	Si	R33		Pt-.45W;n-.62 max;RBB-6.8k ohms max;IV-8.0mA min;Ip-15uA max.
73	JAN2N489A	9	P	Si	R33	CA	Pt-.60W;VB2E-60V;RBB-6.8kΩ max;n-.62 max;Ip-12uA max.
74	2N489B	9	P	Si	R33		Pt-.45W;n-.62 max;RBB-6.8kohms max;IV-8.0mA min;Ip-6.0uA max.
75	2N490	9	P	Si	R33		Pt-.45W;n-.62 max;RBB-9.1kohms max;IV-8.0mA min;Ip-20uA max.
76	2N490A	9	P	Si	R33		Pt-.45W;n-.62 max;RBB-9.1kohms max;IV-8.0mA min;Ip-15uA max.
77	JAN2N490A	9	P	Si	R33	CA	Pt-.60W;VB2E-60V;RBB-9.1kΩ max;n-.62 max;Ip-12uA max.
78	2N490B	9	P	Si	R33		Pt-.45W;n-.62 max;RBB-9.1kohms max;IV-8.0mA min;Ip-6.0uA max.
79	2N490C	9	P	Si	RO33 C	C	Pt-.45W;RBB-9.1kohms;n-.51 min;VEB(sat)-4.0V max.
80	2N491	9	P	Si	R33		Pt-.45W;n-.68 max;RBB-6.8kohms max;IV-8.0mA min;Ip-20uA max.
81	2N491A	9	P	Si	R33		Pt-.45W;n-.68 max;RBB-6.8kohms max;IV-8.0mA min;Ip-15uA max.
82	JAN2N491A	9	P	Si	R33	CA	Pt-.60W;VB2E-60V;RBB-6.8kΩ max;n-.68 max;Ip-12uA max.
83	2N491B	9	P	Si	R33		Pt-.45W;n-.68 max;RBB-6.8kohms max;IV-8.0mA min;Ip-6.0uA max.
84	2N492	9	P	Si	R33		Pt-.45W;n-.68 max;RBB-9.1kohms max;IV-8.0mA min;Ip-20uA max.
85	2N492A	9	P	Si	R33		Pt-.45W;n-.68 max;RBB-9.1kohms max;IV-8.0mA min;Ip-15uA max.
86	JAN2N492A	9	P	Si	R33	CA	Pt-.60W;VB2E-60V;RBB-9.1kΩ max;n-.68 max;Ip-12uA max.
87	2N492B	9	P	Si	R33		Pt-.45W;n-.68 max;RBB-9.1kohms max;IV- 8.0mA min;Ip-6.0uA max.
88	2N492C	9	P	Si	RO33 C	C	Pt-.45W;RBB-9.1kohms;n-.56 min;VEB(sat)-4.3V max.
89	2N493	9	P	Si	R33		Pt-.45W;n-.75 max;RBB-6.8kohms max;IV-8.0mA min;Ip-20uA max.
90	2N493A	9	P	Si	R33		Pt-.45W;n-.75 max;RBB-6.8kohms max;IV-8.0mA min;Ip-15uA max.
91	JAN2N493A	9	P	Si	R33	CA	Pt-.60W;VB2E-60V;RBB-6.8kΩ max;n-.75 max;Ip-12uA max.
92	2N493B	9	P	Si	R33		Pt-.45W;n-.75 max;RBB-6.8kohms max;IV-8.0mA min;Ip-6.0uA max.
93	2N494	9	P	Si	R33		Pt-.45W;n-.75 max;RBB-9.1kohms max;IV-8.0mA min;Ip-20uA max.
94	2N494A	9	P	Si	R33		Pt-.45W;n-.75 max;RBB-9.1kohms max;IV-8.0mA min;Ip-15uA max.
95	JAN2N494A	9	P	Si	R33	CA	Pt-.60W;VB2E-60V;RBB-9.1kΩ max;n-.75 max;Ip-12uA max.
96	2N494B	9	P	Si	R33		Pt-.45W;n-.75 max;RBB-9.1kohms max;IV-8.0mA min;Ip-6.0uA max.
97	2N494C	9	P	Si	RO33 C	C	Pt-.45W;RBB-9.1kohms;n-.62 min;VEB1-4.6V max.
98	2N1671	9	P	Si	R33		Pt-.45W;n-.62 max;RBB-9.1kohms max;IV-8.0mA min;Ip-25uA max.
99	2N1671A	9	P	Si	R33		Pt-.45W;n-.62 max;RBB-9.1kohms max;IV-8.0mA min;Ip-25uA max.
100	2N1671B	9	P	Si	R33		Pt-.45W;n-.62 max;RBB-9.1kohms max;IV-8.0mA min;Ip-6.0uA max.
101	2N1671C	9	N	Si	RO33 C	C	Pt-450mW;Ie(RMS)-50mA;VBB-35V;RBB-4.7k to 9.1k; n-.47 to .62.
102	2N2160	9	P	Si	RO33 C	C	Pt-.45W;VB2B1-35V max;IE-70ma;N-.80 max;IV-8mA min;Ip-25uA max.
103	2N2417	9	P	Si	TO18 C	A	Pt-.39W;n-.62 max;RBB-.68kohms max;IV-8.0mA min;Ip-20uA max.
104	2N2417A	9	P	Si	TO18 C	C	Pt-.30W;n-.62 max;RBBO-6.8kohms max;Ip-12uA max;IV-8mA max.
105	JAN2N2417A	9	P	Si	TO72	CA	Pt-.35W;VB2E-60V;RBB-6.8kΩ max;n-.62 max;Ip-12uA max.
106	2N2417B	9	P	Si	TO18 C	A	Pt-.3W;Rbbo-6.8 ohms max;IV-8.0mA min;Ip-6.0uA max.
107	2N2418	9	P	Si	TO18 C	A	Pt-.39W;n-.62 max;RBB-.68kohms max;IV-8.0mA min;Ip-20uA max.
108	2N2418A	9	P	Si	TO18 C	C	Pt-.30W;n-.62 max;RBBO-9.12kohms max;Ip-12uA max;IV-8mA max.
109	JAN2N2418A	9	P	Si	TO72	CA	Pt-.35W;VB2E-60V;RBB-9.1kΩ max;n-.62 max;Ip-12uA max.
110	2N2418B	9	P	Si	TO18 C	A	Pt-.3W;RBB-9.1 ohms max;IV-8.0mA min;Ip-6.0uA max.

13. MISCELLANEOUS TRANSISTORS

LINE No.	2 TYPE No.	1 CATEGORY USE	STRUCTURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1	2N2419	9	P	Si	TO18 C	A	Pt-.39W;n-.68 max;RBB-6.8kohms;IV-8.0mA min;Ip-20uA max.
2	2N2419A	9	P	Si	TO18 C	C	Pt-.30W;n-.68 max;RBBO-6.9kohms max;Ip-12uA max;IV-8mA max.
3	JAN2N2419A	9	P	Si	TO72	CA	Pt-.35W;VB2E-60V;RBB-6.8kΩ max;n-.68 max;Ip-12uA max.
4	2N2419B	9	P	Si	TO18 C	A	Pt-.3W;RBB-6.8 ohms max;IV-8.0mA min;Ip-6.0uA max.
5	2N2420	9	P	Si	TO18 C	A	Pt-.39W;n-.68 max;RBB-9.1kohms;IV-8.0mA min;Ip-20uA max.
6	2N2420A	9	P	Si	TO18 C	C	Pt-.30W;n-.68 max;RBBO-9.1kohms max;Ip-12uA max;IV-8mA max.
7	JAN2N2420A	9	P	Si	TO72	CA	Pt-.35W;VB2E-60V;RBB-9.1kΩ max;n-.68 max;Ip-12uA max.
8	2N2420B	9	P	Si	TO18 C	A	Pt-.3W;RBB-9.1 ohms max;IV-8.0mA min;Ip-6.0uA max.
9	2N2421	9	P	Si	TO18 C	A	Pt-.39W;n-.75 max;RBB-6.8kohms;IV-8.0mA min;Ip-20uA max.
10	2N2421A	9	P	Si	TO18 C	C	Pt-.30W;n-.75 max;RBBO-6.8kohms max;Ip-12uA max;IV-8mA max.
11	JAN2N2421A	9	P	Si	TO72	CA	Pt-.35W;VB2E-60V;RBB-6.8kΩ max;n-.75 max;Ip-12uA max.
12	2N2421B	9	P	Si	TO18 C	A	Pt-.3W;RBB-6.8 ohms max;IV-8.0mA min;Ip-6.0uA max.
13	2N2422	9	P	Si	TO18 C	A	Pt-.39W;n-.75 max;RBB-9.1kohms;IV-8.0mA min;Ip-20uA max.
14	2N2422A	9	P	Si	TO18 C	C	Pt-.30W;n-.75 max;RBBO-9.1kohms max;Ip-12uA max;IV-8mA max.
15	JAN2N2422A	9	P	Si	TO72	CA	Pt-.35W;VB2E-60V;RBB-9.1kΩ max;n-.75 max;Ip-12uA max.
16	2N2422B	9	P	Si	TO18 C	A	Pt-.3W;RBB-9.1 ohms max;IV-8.0mA min;Ip-6.0uA max.
17	2N2646	9	P	Si	TO72 C	C§	Pt-.3W;n-.75;RBB-9.1kohms;Ip-5uA max;IV-4.0mA min.
18	2N2647	9	P	Si	TO72 C	C§	Pt-.3W;n-.82;RBB-9.1kohms;Ip-2uA max;IV-8.0mA min.
19	2N2840	9	P	Si	TO72 C	AØ	Pt-.30W;VB2E-30V;VBB-35V;Ip-10uA max;IV-.70mA max.
20#	2N3479	9	P	Si	RO33 G	F	Pc-.40W;RBBO-9.1kohms max;n-.62/max;IV-4mA/min;IP-20uA max.
21#	2N3480	9	P	Si	RO33 G	F	Pc-.40W;RBBO-9.1kohms max;n-.75/max;IV-4mA/min;IP-20uA max.
22#	2N3481	9	P	Si	RO33 G	F	Pc-.40W;RBBO-9.1kohms max;n-.85/max;IV-4mA/min;IP-20uA max.
23#	2N3483	9	P	Si	RO33 G	F	Pc-.40W;RBBO-9.1kohms max;n-.75/max;IV-4mA/min;IP-5.0uA max.
24#	2N3484	9	P	Si	RO33 G	F	Pc-.40W;RBBO-9.1kohms max;n-.85 max;IV-4mA min;IP-5.0uA max.
25	2N3980	9	P	Si	TO72 C	A	Pt-.36W;IE-50mA;RBB-8.0kohms;n-.82 max;Ip-2uA max;IV-10mA max.
26	2N4851	9	P	Si	TO72 C	A	Pd-.3W;RBB-9.1kohms max;n-.75 max;IV-2mA max;Ip-2uA max;IE(DC)-50mA
27	2N4852	9	P	Si	TO72 C	A	Pd-.3W;RBB-9.1kohms max;n-.85 max;IV-4mA max;Ip-2uA max.
28	2N4853	9	P	Si	TO72 C	A	Pd-.3W;RBB-9.1kohms max;n-.85 max;IV-6mA max;Ip-.40uA max.
29	2N4870	9	P	Si	TO92 C	B	Pd-.3W;VB2B1-35V max;IV-2mA min;VOB1-3V min;n-.75 max.
30	2N4871	9	P	Si	TO92 C	B	Pd-.3W;VB2B1-35V max;IV-4mA min;VOB1-5V min;n-.85 max.
31	2N4891	9	P	Si	X55	CB	Pt-360mW max;rbb-9.1kohms max;n-.82 max;Ip-5.0uA max.
32	2N4892	9	P	Si	X55	CB	Pt-360mW max;rbb-9.1kohms max;n-.69 max;Ip-2.0uA max.
33	2N4893	9	P	Si	X55	CB	Pt-360mW max;rbb-12kohms max;n-.82 max;Ip-2.0uA max.
34	2N4894	9	P	Si	X55	CB	Pt-360mW max;rbb-12kohms max;1n-.86 max;Ip-1.0uA max.
35	2N4947	9	P	Si	RO33aC	C§	Pt-.36W;RBB-9.1kohms max;n-.69 max;Ip-2.0uA max.
36	JAN2N4947	9	P	Si	R33a	CA	Pt-360mW;RBBO-9.1kΩ max;n-.69 max;Ip-2.0uA max;VB2E-30V.
37	2N4948	9	P	Si	RO33aC	C§	Pt-.36W;RBB-12kohms max;n-.82 max;Ip-2.0uA max.
38	JAN2N4948	9	P	Si	R33a	CA	Pt-360mW;RBBO-12kΩ max;n-.82 max;Ip-2.0uA max;VB2E-30V.
39	2N4949	9	P	Si	RO33aC	C§	Pt-.36W;RBB-12kohms max;n-.86 max;Ip-1.0uA max.
40	JAN2N4949	9	P	Si	R33a	CA	Pt-360mW;RBBO-12kΩ max;n-.86 max;Ip-1.0uA max;VB2E-30V.
41	2N5431	9	P	Si	RO141C	A	Pt-.3W;n-.8max;RBB-8.5kohms;Ip-4.0uA max;Iv-2.0mA min.
42#	2SH11	9	N	Si	TO5		Pc-450mW;N-.58/.75;VBB-4500ohms;Ie(DC)-50mA.
43#	2SH12	9	N	Si	TO5		Pc-450mW;N-.47/.62;VBB-4500ohms;Ie(DC)-50mA.
44#	2SH13	9	P	Si	TO5		Pt-.45W.
45#	2SH14	9	P	Si	TO5		Pt-.45W.
46#	2SH20	9	N	Si	TO18 C	B	Pt-200mW;n-.90 max;RBB-4.0kohms min;IV-2.0mA min;IP-8.0uA max.
47#	2SH22	9	N	Si	TO18 C	B	Pt-200mW;n-.85 max;RBB-4.0kohms min;IV-4.0mA min;IP-4.0uA max.
48	D5E37	9	N	Si	RO33aC	A	Pt-.30W;RBB-12kohms max;IV-4.0mA min;n-.85 max;Ip-25uA max.
49	D5E43	9	P	Si	RO141C	A	Pt-300mW;Iv-6.0mA min;n-.82 max;Ip-2.0uA;RBBO-9.1k max.
50	D5E44	9	P	Si	RO141C	A	Pt-300mW;Iv-4.0mA min;n-.82 max;Ip-5.0uA;RBBO-9.1k max.
51	D5E45	9	P	Si	RO141C	A	Pt-300mW;Iv-8.0mA min;n-.82 max;Ip-2.0uA;RBBO-9.1k max.
52	D5K1	9	P-PL	Si	RO33aC	C	Pt-.30W;RBB-8.2kohms max;IV-2.0mA typ;n-.62 max.
53	D5K2	9	P-PL	Si	RO33aC	C	Pt-.20W;RBB-15kohms max;IV-2.0mA typ;n-.62 max.
54	D13T1	9	P-PL	Si	TO98		Programmable;Pt-300mW;Iv-50uAmax;Ip-5.0uAmax;Vf-1.5Vmax.
55	D13T2	9	P-PL	Si	TO98		Programmable;Pt-300mW;Iv-25uAmax;Ip-1.0uAmax;Vf-1.5Vmax.
56▼#	MEU21	9	P	Si	R110		Pt-300mW;Programmable N. Rbb Ip and Iv;BVAKO-±40V;Ip-5.0uA max.
57▼#	MEU22	9	P	Si	R110		Pt-300mW;Programmable N. Rbb Ip and Iv;BVAKO-±40V;Ip-1.0uA max.
58	MU10	9	PAN†	Si	X20d C	B	Pt-.30W;n-.85 max;RBB-10kohm;IV-10mA max;IP-5uA max;VEB1(sat)-2V.
59	MU20	9	PAN	Si	RO141C	C	Pt-.30W;n-.85 max;RBB-9.1kohm;IV-10mA max;IP-2uA max;VEB1(sat)-2V.
60	MU4891	9	PAN†	Si	X20d C	B	Pt-.30W;n-.82 max;RBB-9.1kohm;IV-2mA;IP-5uA max;VEB1(sat)-4V max.
61	MU4892	9	PAN†	Si	X20d C	B	Pt-.30W;n-.69 max;RBB-9.1kohm;IV-2mA;IP-2uA max;VEB1(sat)-4V max.
62	MU4893	9	PAN†	Si	X20d C	B	Pt-.30W;n-.82 max;RBB-12kohm;IV-2mA;IP-2uA max;VEB1(sat)-4V max.
63	MU4894	9	PAN†	Si	X20d C	B	Pt-.30W;n-.86 max;RBB-12kohm;IV-2mA;IP-1uA max;VEB1(sat)-4V max.
64#	ST20	9	P	Si	TO72 C	A	Pt-200mW;VB2E-20V;VBB-20V;Iv-20ma max;fab-20Mc.
65#	ST50	9	P	Si	TO72	CA	Pt-500mW;VB2E-30V;VBB-20V;Iv-50mA max;fab-200kHz.
66#	ST50Ø	9	P	Si	TO72	CA	Pt-500mW;VB2E-30V;VBB-20V;Iv-50mA max;fab-200kHz.
67	TIS43	9	P-PL	Si	TO92	CD	Pt-360mW;IEB2O-10nA max at 30V;RBB-9.1kΩ max;n-.55† .82
68	2N941*	10	P-A	Si	TO18	A	Voff-1.0mV max; Ioff-1.0n Amps.
69	2N942*	10	P-A	Si	TO18	A	Voff-3.0mV max; Ioff-3.0n Amps.
70	2N943*	10	P-A	Si	TO18	A	Voff-2.0mV max; Ioff-1.0n Amps; fab-1.0Mc min.
71	2N944*	10	P-A	Si	TO18	A	Voff-3.0mV max; Ioff-1.5n Amps; fab-1.0Mc min.
72	2N945*	10	P-A	Si	TO18	A	Voff-4.0mV max; Ioff-2.0n Amps; fab-1.0Mc min.
73	2N946*	10	P-A	Si	TO18	A	Voff-4.0mV max; Ioff-2.0n Amps; fab-1.0Mc min.
74	2N1676*	10	P-A	Si	TO5	A	Voff-1.0mV max; VCE(SAT)-.10V at IC-5.0mA;ft-42Mc Typ.
75	2N1677*	10	P-A	Si	TO5	A	Voff-3.0mV max; VCE(sat)-.10V at IC-5.0mA;ft-32Mc Typ.
76	2N1917*	10	P-A	Si	TO5	A	Voff-1.0mV max; Ioff-1.0n Amps.
77	2N1918*	10	P-A	Si	TO5	A	Voff-3.0mV max; Ioff-3.0n Amps.
78	2N1919*	10	P-A	Si	TO5	A	Voff-2.0mV max; Ioff-1.0n Amps; fab-1.0Mc min.
79	2N1920*	10	P-A	Si	TO5	A	Voff-3.0mV max; Ioff-1.5n Amps; fab-1.0Mc min.
80	2N1921*	10	P-A	Si	TO5	A	Voff-4.0mV max; Ioff-2.0n Amps; fab-1.0Mc min.
81	2N1922*	10	P-A	Si	TO5	A	Voff-4.0mV max; Ioff-2.0n Amps; fab-1.0Mc min.
82	2N2162*	10	P-PA	Si	TO5	A	Voff-2.0mV max; rS-20 ohms; ft-14Mc. min.
83	2N2163*	10	P-PA	Si	TO5	A	Voff-2.0mV max; rS-20 ohms; ft-14Mc. min.
84	2N2164*	10	P-PA	Si	TO5	A	Voff-1.5mV max; rS-20 ohms; ft-24Mc. min.
85	2N2165*	10	P-PA	Si	TO5	A	Voff-3.0mV max; rS-20 ohms; ft-10Mc. min.
86	2N2166*	10	P-PA	Si	TO5	A	Voff-3.0mV max; rS-30 ohms; ft-10Mc. min.
87	2N2167*	10	P-PA	Si	TO5	A	Voff-2.5mV max; rS-20 ohms; ft-16Mc. min.
88	2N2185*	10	P	Si	TO18	A	Voff-2.5mV max; ts-250ns max.
89	2N2186*	10	P	Si	TO18	A	Voff-2.5mV max; ΔVoff-50uV max; ts-250ns max.
90	2N2187*	10	P	Si	TO18	A	Voff-2.5mV max; ΔVoff-50uV max; ts-250ns max.
91	2N2274*	10	P	Si	TO18	A	Voff-3.5mV max; ts-250ns.
92	2N2275*	10	P	Si	TO18	A	Voff-3.5mV max; ΔVoff±100uV max; ts-250ns.
93	2N2276*	10	P	Si	TO18	A	Voff-2.5mV max; ts-250ns.
94	2N2277*	10	P	Si	TO18	A	Voff-2.5mV max; ΔVoff±100uV max; ts-250ns.
95	2N2278*	10	P	Si	TO18	A	Voff-2.25mV max; ts-250ns.
96	2N2279*	10	P	Si	TO18	A	Voff-2.25mV max; ΔVo-50uV max; ts-250ns.
97	2N2280*	10	P-E	Si	TO18	A	Voff-2.0mV max;ts-250ns; REC(sat)-18 ohms max.
98	2N2330*	10	N	Si	TO5	AØ	Voff-.75mV max;Ioff-1.0nA max;ft-100Mc min.
99	2N2331*	10	N	Si	TO18	AØ	Voff-.75mV max;Ioff-1.0nA;ft-100Mc min.
100	2N2356*	10	N-*	Si	L6		Voff-80uVmax;IEBO1or2-10nAmax;rs-40Ωmax;ΔIOFF-5nAmax.
101	2N2356A*	10	N	Si	L6		Voff-50uV max; Ioff-2nA max; BVECO-7.0V. max.
102	2N2432*	10	N	Si	TO18	AØ	Pc-600mW at 25 deg.C Case;VEC(off)-.50mV;Ccb-12pf;r(ON)-20 ohms
103	2N2432A*	10	N	Si	TO18	AØ	Pc-600mW at 25 deg.C Case;ICES-10nA;hFE(INV)-3.0;VEC(ofs)-.70mV max.
104	2N2569*	10	N-PE	Si	TO18	AØ	Pc-300mW;Voff-.50mV max;hFE-50 min;Ioff-2.0nA max.
105	2N2570*	10	N-PE	Si	TO18	AØ	Pc-300mW;Voff-1.0mV max;hFE-50 min;Ioff-2.0nA max.
106	2N2944A	10	P	Si	TO46	AØ	Pt-400mW;rec(on)-4.0ohms max;VEC(ofs)-.30mV max.
107	JAN2N2944A*	10	PΔ	Si	TO46	AØ	Voff-.30mV max;rec(on)-4.0Ω max;hFE(inv)-50 min;tr-100nsec.
108	2N2945A	10	P	Si	TO46	AØ	Pt-400mW;rec(on)-6.0ohms maxVEC(ofs)-.50mV max.
109	JAN2N2945A*	10	PΔ	Si	TO46	AØ	Voff-.50mV max;rec(on)-6.0Ω max;hFE(inv)-30 min;tr-100nsec.
110	2N2946A	10	P	Si	TO46	AØ	Pt-400mW;rec(on)-8.0ohms max;VEC(ofs)-.80mV max.

13. MISCELLANEOUS TRANSISTORS

IN ORDER OF (1) CATEGORY & (2) TYPE No.

LINE No.	2 TYPE No.	1 CATEGORY USE	STRUCTURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1	JAN2N2946A*	10	PΔ	Si	TO46	AØ	Voff-.80mV max;rec(on)-8.0Ω max;hFE(inv)-20 min;tr-100nsec.
2	2N3082*	10	N-PE	Si	L1		ΔVoff-75uV max;rS-40 ohms max;VCEO-20V max;Δloff-5.0mA max.
3	2N3083*	10	N-PE	Si	L1		ΔVoff-75uV max;rS-40 ohms max;VCEO-20V max;Δloff-2.0mA max.
4	2N3217*	10	P-E	Si	TO46	A	Voff-1.0mV max; Rsat-30 ohms max. at IE-.10mA;IB-1.0mA max.
5	2N3218*	10	P-E	Si	TO46	A	Voff-2.0mV max; Rsat-50 ohms max. at IE-.10mA;IB-1.0mA.
6	2N3219*	10	P-E	Si	TO46	A	Voff-3.0mV max; Rsat-60 ohms max. at IE-.10mA;IB-1.0mA.
7	2N3317*	10	P	Si	R98		Voff-1.75mV max. at IB-.50mA;rS-20 ohms max. at IB-1mA;IE-.10mA
8	2N3318*	10	P	Si	R98		Voff-1.5mV max. at IB-.50mA;rS-18 ohms max. at IB-1mA;IE-.10mA
9	2N3319*	10	P	Si	R98		Voff-1.5mV max. at IB-.50mA;rS-18 ohms max. at IB-1mA;IE-.10mA
10	2N3343*	10	PΔ	Si	TO5	A	Voff-1.2mV max;hFC-4 min;R(at)-35 ohms max;Toff-2.5usec max.
11	2N3344*	10	PΔ	Si	TO5	A	Voff-1.2mV max;hFC-1.5 min;R(sat)-20 ohms max;Toff-2.5usec max.
12	2N3345*	10	PΔ	Si	TO5	A	Voff-3.0mV max;hFC-1.2 min;R(sat)-25 ohms max;Toff-2.5usec max.
13	2N3346*	10	PΔ	Si	TO5	A	Voff-1.2mV max;hFC-1.5 min;R(sat)-20 ohms max;Toff-2.5usec max.
14	2N3401*	10	P	Si	TO5	A	Voff-.01V max;hFE(inv)-1.85 min;R(sat)-50ohms.
15	2N3609*	10	P	Si	L18		gfs 1/2-.80min-1.0max;VGST(1-2)-100mVmax;crss-2.0pf max.
16	2N3677	10	P	Si	TO46	AØ	Voff-1.0mV;rS-8.0 ohms max;/hFE/ at 1 Mc-5.0.
17	2N3840	10	P	Si	TO46	AØ	Pc-400mW;BVCBO-50V;BVCEO-50V;BVEBO-50V;hFE-50 min./IC-1.0mA
18	2N3841	10	P	Si	TO18	AØ	Pc-300mW;BVCBO-100V;BVCEO-100V;BVEBO-80V;hFE-20 min./IC-1.0mA
19	2N3842	10	P	Si	TO18	AØ	Pc-300mW;BVCBO-120V;BVCEO-120V;BVEBO-120V;hFE-20 min./IC-1.0mA
20	2N3910*	10	P	Si	TO46	AØ	Voff-1.2mV max;rd-40ohms max;VCE(sat)-.30V max;hFE(inv)-5.0 min.
21	2N3911*	10	P	Si	TO46	AØ	Voff-.90mV max;rd-25ohms max;VCE(sat)-.30V max;hFE(inv)-10 min.
22	2N3912*	10	P	Si	TO46	AØ	Voff-.60mV max;rd-20ohms max;VCE(sat)-.30V max;hFE(inv)-15 min.
23	2N3913*	10	P	Si	TO18	A	Voff-1.2mV max;rd-40 ohms max;VCE(sat)-.3V max;hFE(inv.)-5.0 min.
24	2N3914*	10	P	Si	TO18	A	Voff-.90mV max;rd-25 ohms max;VCE(sat)-.3V max;hFE(inv.)-10 min.
25	2N3915*	10	P	Si	TO18	A	Voff-.60mV max;rd-20 ohms max;VCE(sat)-.3V max;hFE(inv.)-15 min.
26	2N3977*	10	P	Si	TO46	AØ	Voff-1.25mV max;rd-20 ohms max;VCE(sat)-.10mV max.
27	2N3978*	10	P	Si	TO46	AØ	Voff-2.0mV max;rd-35 ohms max;VCE(sat)-.15mV max.
28	2N3979*	10	P	Si	TO46	AØ	Voff-3.0mV max;rd-45 ohms max;VCE(sat)-.15mV max.
29	2N4980*	10	PΔ	Si	TO46	AØ	Voff-1.2mV;rs(ON)-16 ohms max;hFE(INV) min-7;VECO-30V max.
30	2N4981*	10	PΔ	Si	TO46	AØ	Voff-1.4mV;rs(ON)-18 ohms max;hFE(INV) min-6;VECO-50V max.
31	2N4982*	10	PΔ	Si	TO46	AØ	Voff-1.6mV;rs(ON)-20 ohms max;hFE(INV) min-5;VECO-70V max.
32	2N5066*	10	NΔ	Si	TO46	AØ	Pt-400mW;VCES-20V;Voff-1.0mV max;rs(ON)-8.0 ohms max.
33	2N5229*	10	P	Si	TO46	AØ	Voff-.50mV;hFE(inv)-15;r(on)-6.0 ohms;ccb-5.0pf.
34	2N5230*	10	P	Si	TO46	AØ	Voff-.50mV;hFE(inv)-15;r(on)-8.0 ohms;ccb-5.0pf.
35	2N5231*	10	P	Si	TO46	AØ	Voff-.80mV;hFE(inv)-15;r(on)-10 ohms;ccb-5.0pf.
36	2S306*	10	P-A	Si	TO5		Pc-50mW;Voff-1.0mV;IEO-10nA max;rd-200 ohms max.
37	2S307*	10	P-A	Si	TO5		Pc-50mW;Voff-1.0mV;IEBX-10nA max;rd-20 ohms max.
38	2S326*	10	P-A	Si	TO5		Pc-50mW;Voff-1.0mV;IEO-10nA max;rd-200 ohms max.
39	2S327*	10	P-A	Si	R51		Pc-50mW;Voff-1.0mV;IEBX-10nA max;rd-20 ohms max.
40	3N62	10	NΔ	Si	TO72 G	DØ	Voff-200uV max;rs(on)-100ohms;BVE1E2O-6V;IE1E2O-.005uA;ton-250ns.
41	3N63	10	NΔ	Si	TO72 G	DØ	Voff-100uV max;rs(on)-100ohms;BVE1E2O-6V;IE1E2O-.005uA;ton-250ns.
42	3N64	10	NΔ	Si	TO72 G	DØ	Voff-50uV max;rs(on)-100ohms;BVE1E2O-6V;IE1E2O-.005uA;ton-250ns.
43	3N65	10	NΔ	Si	TO72 G	DØ	Voff-200uV max;rs(on)-100ohms;BVE1E2O-10V;IE1E2O-.005uA;ton-250ns.
44	3N66	10	NΔ	Si	TO72 G	DØ	Voff-100uV max;rs(on)-100ohms;BVE1E2O-10V;IE1E2O-.005uA;ton-250ns.
45	3N67	10	NΔ	Si	TO72 G	DØ	Voff-50uV max;rs(on)-100ohms;BVE1E2O-10V;IE1E2O-.005uA;ton-250ns.
46	3N68	10	NΔ	Si	TO72 G	DØ	Voff-200uV max;rs(on)-50ohms;BVE1E2O-10V;IE1E2O-.005uA;ton-250ns.
47	3N68A	10	NΔ	Si	TO72 G	DØ	BVE1E2S-10V min;Voff-.20mV max;IE1E2S-5nA max;ton-.25uS;toff-.25uS
48	3N69	10	NΔ	Si	TO72 G	DØ	Voff-100uV max;rs(on)-50ohms;BVE1E2O-10V;IE1E2O-.005uA;ton-250ns.
49	3N70	10	NΔ	Si	TO72 G	DØ	Voff-50uV max;rs(on)-50ohms;BVE1E2O-10V;IE1E2O-.005uA;ton-250ns.
50	3N71*	10	N	Si	TO72 G	CØ	Voff-50uV max;hFE(inv)-2.5 min;BVE1E2S-8V min;IE1E2O-5nA max.
51	3N72*	10	N	Si	TO72 G	CØ	Voff-100uV max;hFE(inv)-2.5 min;BVE1E2S-8V min;IE1E2O-5nA max.
52	3N73*	10	N	Si	TO72 G	CØ	Voff-200uV max;hFE(inv)-1.5 min;BVE1E2S-8V min;IE1E2O-5nA max.
53	3N74*	10	NΔ	Si	TO72 G	CØ	Voff-50uV max;IE1E2S-2nA max;BVE1E2S-18V max;ΔVoff/ΔT-75uV/deg.C.
54	JAN3N74*	10	N	Si	TO72	GCØ	VE1E2(ofs)-50uV max;re1e2(on)-10Ω min;Ce2b-5pf max.
55	3N75*	10	NΔ	Si	TO72 G	CØ	Voff-100uV max;IE1E2S-2nA max;BVE1E2S-18V max;ΔVoff/ΔT-125uV/deg.C
56	JAN3N75*	10	N	Si	TO72	GCØ	VE1E2(ofs)-100uV max;re1e2(on)-10Ω min;Ce2b-5pf max.
57	3N76*	10	NΔ	Si	TO72 G	CØ	Voff-200uV max;IE1E2S-2nA max;BVE1E2S-18V max;ΔVoff/ΔT-175uV/deg.C
58	JAN3N76*	10	N	Si	TO72	GCØ	VE1E2(ofs)-200uV max;re1e2(on)-10Ω min;Ce2b-5pf max.
59	3N77*	10	NΔ	Si	TO72 G	CØ	Voff-50uV max;IE1E2S-5nA max;BVE1E2S-12V max;ΔVoff/ΔT-75uV/deg.C.
60	3N78*	10	NΔ	Si	TO72 G	CØ	Voff-100uV max;IE1E2S-5nA max;BVE1E2S-12V max;ΔVoff/ΔT-125uV/deg.C
61	3N79*	10	NΔ	Si	TO72 G	CØ	Voff-200uV max;IE1E2S-10nA max;BVE1E2S-12V max;ΔVoff/ΔT-175uV/deg.C
62	3N87*	10	N	Si	TO72 G	CØ	Voff-50uV max;IE1E2S-20pA max;BVE1E2S-10V max;ΔVoff/ΔT-100uV/deg.C
63	3N88*	10	N	Si	TO72 G	CØ	Voff-100uV max;IE1E2S-20pA max;BVE1E2S-10V max;ΔVoff/ΔT-100uV/deg.C
64	3N90*	10	PΔ	Si	TO72 G	DØ	Voff-50uV max;BVE1E2O-50V;IE1E2O-1.0nA max;ΔVoff/ΔT-75uV/deg.C.
65	3N91*	10	PΔ	Si	TO72 G	DØ	Voff-100uV max;BVE1E2O-50V;IE1E2O-1.0nA max;ΔVoff/ΔT-125uV/deg.C.
66	3N92*	10	PΔ	Si	TO72 G	DØ	Voff-200uV max;BVE1E2O-50V;IE1E2O-1.0nA max;ΔVoff/ΔT-175uV/deg.C.
67	3N93*	10	PΔ	Si	TO72 G	DØ	Voff-50uV max;BVE1E2O-50V;IE1E2O-1.0nA max;ΔVoff/ΔT-75uV/deg.C.
68	JAN3N93*	10	P	Si	TO72	GD	Voff-50uV max;RE1E2-50Ω max;tr-20nsec max;ts-250nsec max.
69	3N94*	10	PΔ	Si	TO72 G	DØ	Voff-100uV max;BVE1E2O-50V;IE1E2O-1.0nA max;ΔVoff/ΔT-125uV/deg.C.
70	3N95*	10	PΔ	Si	TO72 G	DØ	Voff-200uV max;BVE1E2O-50V;IE1E2O-1.0nA max;ΔVoff/ΔT-175uV/deg.C.
71	3N100	10	P-Δ	Si	TO72 G	CØ	Pt-.30W;Voff-50uV max;IC-50mA;BVCBO-20V;rs-50 ohms max.
72	3N101	10	P-Δ	Si	TO72 G	CØ	Pt-.30W;Voff-50uV max;IC-50mA;BVCBO-30V;rs-50 ohms max.
73	3N102	10	P-Δ	Si	TO72 G	CØ	Pt-.30W;Voff-50uV max;IC-50mA;BVCBO-40V;rs-50 ohms max.
74	3N103	10	P-Δ	Si	TO72 G	CØ	Pt-.30W;Voff-50uV max;IC-50mA;BVCBO-50V;rs-50 ohms max.
75	3N104	10	P-Δ	Si	TO72 G	CØ	Pt-.30W;Voff-50uV max;IC-50mA;BVCBO-60V;rs-50 ohms max.
76	3N105	10	P-Δ	Si	TO72 G	CØ	Pt-.30W;Voff-250uV max;IC-50mA;BVCBO-20V;rs-100 ohms max.
77	3N106	10	P-Δ	Si	TO72 G	CØ	Pt-.30W;Voff-250uV max;IC-50mA;BVCBO-40V;rs-100 ohms max.
78	3N107	10	P-Δ	Si	TO72 G	CØ	Pt-.30W;Voff-250uV max;IC-50mA;BVCBO-60V;rs-100 ohms max.
79	3N108	10	P	Si	TO72 G	CØ	VE1BO-50V;IE1E2-.10nA max;re1-e2(on)-50 ohms max.
80	JAN3N108*	10	P	Si	TO72	GC	Pt-600mW case;IE1E2-.10nA max;VE1E2/-30uV;re1e2(on)-50Ω max.
81	3N109	10	P	Si	TO72 G	CØ	VE1BO-50V;IE1E2-.10nA max;re1-e2(on)-50 ohms max.
82	3N110	10	P	Si	TO72 G	CØ	VE1BO-30V;IE1E2-.50nA max;re1-e2(on)-50 ohms max.
83	3N111	10	P	Si	TO72 G	CØ	VE1BO-30V;IE1E2-.50nA max;re1-e2(on)-50 ohms max.
84	3N112*	10	P Δ	Si	L38		Pt-.2W;VE1E2O-30V;IE1E2O-1nA;re1e2-100 ohms;(Vo)1.2-50uV.
85	3N113*	10	P Δ	Si	L38		Pt-.2W;VE1E2O-50V;IE1E2O-1nA;re1e2-100 ohms;(Vo)1.2-50uV.
86	3N114*	10	P	Si	TO72 G	DØ	Voff-50uV max;BVE1E2O-12V;IE1E2O-1.0nA max;ΔVoff/ΔT-75uV/deg.C.
87	3N115*	10	P	Si	TO72 G	DØ	Voff-100uV max;BVE1E2O-12V;IE1E2O-1.0nA max;ΔVoff/ΔT-125uV/deg.C.
88	3N116*	10	P	Si	TO72 G	DØ	Voff-200uV max;BVE1E2O-12V;IE1E2O-1.0nA max;ΔVoff/ΔT-175uV/deg.C.
89	3N117*	10	P	Si	TO72 G	DØ	Voff-50uV max;BVE1E2O-20V;IE1E2O-1.0nA max;ΔVoff/ΔT-75uV/deg.C.
90	3N118*	10	P	Si	TO72 G	DØ	Voff-100uV max;BVE1E2O-20V;IE1E2O-1.0nA max;ΔVoff/ΔT-125uV/deg.C.
91	3N119*	10	P	Si	TO72 G	DØ	Voff-200uV max;BVE1E2O-20V;IE1E2O-1.0nA max;ΔVoff/ΔT-175uV/deg.C.
92	3N120*	10	NΔ	Si	TO72 G	CØ	BVE1E2-20V;Voff-10uV max;ΔVoff/ΔT-20uV/deg.C;rON-25ohms max.
93	3N121*	10	NΔ	Si	TO72 G	DØ	BVE1E2-20V;Voff-10uV max;ΔVoff/ΔT-20uV/deg.C;rON-25ohms max.
94	3N123*	10	P	Si	TO72 G	DØ	BVE1E2O-25V min;Voff-.25mV max;IE1E2O-1nA max;ΔVO/ΔT-150uV/deg.C.
95	3N127*	10	N	Si	L46	Ø	IB-10mA;IE-10mA;Ceb-2.0pf;Vo-10uV.
96	JAN3N127*	10	N	Si	GCØ	GCØ	VE1E2(ofs)-10uV max;re1e2(on)-1.0Ω min;Ce2b-2pf max.
97	3N129*	10	PΔ	Si	TO72 G	CØ	VE1-E2/ΔT-10uV max;rs(ON)-15 ohms max;V(BR)E1-E2-10V;VE1-E2-30uV.
98	3N130*	10	PΔ	Si	TO72 G	CØ	VE1-E2/ΔT-10uV max;rs(ON)-15 ohms max;V(BR)E1-E2-20V;VE1-E2-30uV.
99	3N131*	10	PΔ	Si	TO72 G	CØ	VE1-E2/ΔT-10uV max;rs(ON)-15 ohms max;V(BR)E1-E2-30V;VE1-E2-30uV.
100	3N132*	10	PΔ	Si	TO72 G	CØ	VE1-E2/ΔT-10uV max;rs(ON)-15 ohms max;V(BR)E1-E2-40V;VE1-E2-30uV.
101	3N133*	10	PΔ	Si	TO72 G	CØ	VE1-E2/ΔT-10uV max;rs(ON)-15 ohms max;V(BR)E1-E2-50V;VE1-E2-30uV.
102	3N134*	10	PΔ	Si	TO72 G	CØ	VE1-E2/ΔT-25uV max;rs(ON)-15 ohms max;V(BR)E1-E2-15V;VE1-E2-100uV.
103	3N135*	10	PΔ	Si	TO72 G	CØ	VE1-E2/ΔT-25uV max;rs(ON)-15 ohms max;V(BR)E1-E2-30V;VE1-E2-100uV.
104	3N136*	10	PΔ	Si	TO72 G	CØ	VE1-E2/ΔT-25uV max;rs(ON)-15 ohms max;V(BR)E1-E2-50V;VE1-E2-100uV.
105	5	10	N-DM	Si	L6		Matched pair; ICBO-10uA; BVCER-20V; BVEBO-5.0V.
106	6	10	N-DM	Si	X32		Matched pair; ICBO-10uA; BVCER-20V; BVEBO-5.0V.
107	7	10	N-PE	Si	X33		Matched pair; ICEO-2.0nA; BVCEO-45V; ft-30Mc.
108	10	10	N-DM	Si	OV13		Matched pair; ICEO-2.0nA; BVCEO-45V; ft-30Mc.
109	12C101	10	N-PL	Si	L1a		Pt-500mW; VCEO-20V; ΔVoff-50uV max; Δloff-2mA max.
110	12C102	10	N-PL	Si	L1a		Pt-500mW; VCEO-20V; ΔVoff-100uV max; Δloff-2.0mA max.

13. MISCELLANEOUS TRANSISTORS

LINE No.	2 TYPE No.	1 CATEGORY USE	STRUCTURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1	20	10	P-A	Si	OV13		Matched pair; ICBO-2.0uA; BVCEO-20V; BVEBO-12V.
2	30	10	P-A	Si	X33a		Matched pair; ICBO-2.0uA; BVCEO-20V; BVEBO-12V.
3	40	10	P-A	Si	X33c		Matched pair; ICBO-25nA; BVCEO-35V; BVCBO-40V.
4	50	10	P-A	Si	X33e		Matched pair; ICBO-3.0uA; BVCEO-25V; BVCBO-25V.
5	60	10	P-A	Si	X33b		Matched pair; ICBO-2.0uA; BVCEO-36V; BVEBO-12V.
6	70	10	P-A	Si	X33d		Matched pair; ICBO-3.0nA; BVCEO-6.0V; BVEBO-10V.
7	A569	10	N	Si	TO18	A	Matched Pair of 2N2569; Voff - ±50uV.
8	A570	10	N	Si	TO18	A	Matched Pair of 2N2570; Voff - ±100uV.
9#	BFV34*	10	P-PE	Si	u34b	P	Pt-.15W;hFE(inv)-6.0 min;VEC(ofs)-.30mV;rec(on)-20 ohms.
10#	BFV35*	10	P-PE	Si	u34b	P	Pt-.15W;hFE(inv)-4.0 min;VEC(ofs)-.50mV;rec(on)-35 ohms.
11#	BFV36*	10	P-PE	Si	u34b	P	Pt-.15W;hFE(inv)-3.0 min;VEC(ofs)-.80mV;rec(on)-45 ohms.
12#	BFV37*	10	N-PE	Si	u34b	P	Pt-.15W;hFE(inv)-2.0 min;VEC(ofs)-.50mV;rec(on)-20 ohms.
13#	BFV38*	10	N-PE	Si	u34b	P	Pt-.15W;hFE(inv)-3.0 min;VEC(ofs)-.40mV;rec(on)-15 ohms.
14#	BFV89*	10	N-PE	Si	u26a	B	Pt-.30W;hFE(inv)-2.0 min;VEC(ofs)-.40mV;rec(on)-15 ohms.
15#	BFV89A*	10	N-PE	Si	u26a	B	Pt-.30W;hFE(inv)-3.0 min;VEC(ofs)-.70mV;rec(on)-15 ohms.
16#	BSX82*	10	N-MOS	Si	TO33 D	W	Pt-250mW;Voff-30uV max; Cob-4pf max;Roff-20Mr.
17#	BSY89*	10	N-PE	Si	TO18	AØ	Voff-1.0mV max;rs-20 ohms;cob-12pf;ft-40Mc min.
18	D12X013	10	N-PE	Si	L11		Pt-500mW each;VCEO-20V;ΔVoff-100uV max;Δloff-10uA max.
19	D12X070	10	N-PE	Si	L11		Pt-500mW each;VCEO-20V;ΔVoff-50uV max;Δloff-10mA max.
20	LDS207*	10	N-PEΔ	Si	u34c	P	Pt-.36W;hFE(INV)-20min;Voff-.10mV max;rec(on)-4 ohms max.
21	ME209*	10	NPE	Si	TO18	A	Voff-250uV max; Ioff-2.0n Amps max; Rsat-15ohms.
22	ME214*	10	NPE	Si	TO18	A	Voff-500uV max; Ioff-2.0n Amps max; Rsat-15ohms.
23	ST5641	10	N-PE	Si	TO18		Voff-.50mV max;rd-25 ohms max;VECO-15V min.
24	ST61000*	10	P-PE	Si	TO46	AØ	hFE(inverse)-75 min at VCE-6.0V;VEC(off)-.80mV;rec(on)-3.0ohms.
25	ST70000*	10	N-PE*	Si	L62		Voff/IB-10uV max;ΔVoff/TA-20uV max;Δ/Voff1/2/TA-10uV max.
26	ST70001*	10	N-PE*	Si	L62		Voff/IB-25uV max;ΔVoff/TA-50uV max;Δ/Voff1/2/TA-25uV max.
27▼#	UPA36A	10	N-PE	Si	L6a		Pt-200mW;VCER-5.0V;VECR-5.0V;IC-50mA;IE-50mA;ΔVoff-50uV max;Δloff-1.0nA max.
28#	ZDT10	10	N-PL	Si	L2h		ΔVEC-250uV max;VEC-2.0mV;IE1E2-10nA max.
29#	ZDT30*	10	N-PE	Si	TO72 G	C	VE1E2-50uV at IB-.50mA;IE1E2O-10nA at VE1E2-5.0to-5.0V;rS-15ohms
30#	ZDT31*	10	N-PE	Si	TO72 G	C	VE1E2-50uV at IB-.50mA;IE1E2O-10nA at VE1E2-5.0to-5.0V;rS-15ohms
31#	2C111*	11	N-DPL	Si	L2b		VCEO-12V min;Pt-.38W;ft-200Mc min;ton-40nsec;hFE-80 at IC-10mA.
32#	2C415*	11	N-DPL	Si	L2b		VCEO-35V min;Pt-.43W;ft-100Mc;ICBO-3.0nA;hFE-60 min at IC-10uA.
33#	2C425*	11	N-DPL	Si	L2b		VCEO-60V min;Pt-.51W;ft-40Mc min;ICBO-1.0nA;hFE-85 at IC-10mA.
34	2N998	11	N-PL	Si	L4		Pc-.50W max;BVCBO-100V;hFE-1600 min/IC-10mA;BVCEO-60V;ICBO-.010uA
35	2N999	11	N	Si	L4		Pc-.50W; hFE-70000 max. pulsed at IC-100mA and VCE-10V
36	2N2641*	11	N Ø	Si	L2t		Pt-.6W;VCE(sat)-100ohms max;VBE-.60V min;hFE-50 min.
37	2N2644*	11	N Ø	Si	L2t		Pt-.6W;VCE(sat)-100ohms max;VBE-.60V min;hFE-100 min.
38	2N2723	11	N-PL	Si	L4		Darlington Amp.;hFE-1500-15000;BVCEO-60V.
39	2N2724	11	N-PL	Si	L4		Darlington Amp.;hFE-5000-60000;BVCEO-60V.
40	2N2725	11	N-PL	Si	L4		Darlington Amp.;hFE-1500-15000;BVCEO-45V.
41	2N2785	11	N	Si	L4		Pc-.50W; BVCBO-60V; hFE:2,000-20,000
42	2N2804*	11	P	Si	L17k		Pt-.50W;hFE-20-120 at IC-.10mA,VCE-5V;VCE(sat)-.5V.
43	2N2807*	11	P	Si	L17k		Pt-.50W;hFE-40-120 at IC-.10mA,VCE-5V;VCE(sat)-.5V.
44	2N2913*	11	N	Si	L2t		Pt-.50W;ICBO-10uA at 150 deg.C;VBE(ON)-.70V max;VCE(sat)-.35V max.
45	2N2914*	11	N	Si	L2t		Pt-.50W;ICBO-10uA at 150 deg.;VBE(ON)-.70V max;VCE(sat)-.35V max.
46	2N3425*	11	N	Si	L2t		Pt-.4W;VC1C2-200V;ton-50nsec max;toff-90nsec max.
47	2N3800*	11	PØ	Si	L17e		Pt-360mW;hFE-100 min. at IC-10uA;VCE(sat)-.20V max.
48	2N3801*	11	PØ	Si	L17e		Pt-360mW;hFE-225 min. at IC-10uA;VCE(sat)-.20V max.
49	2N3806*	11	PØ	Si	L17k		Pt-600mW;hFE-100 min. at IC-10uA;VCE(sat)-.20V max.
50	2N3807*	11	PØ	Si	L17k		Pt-600mW;hFE-225 min. at IC-10uA;VCE(sat)-.20V max.
51	2N3812*	11	PØ	Si	L17s		Pt-.35W;hFE-100 min. at IC-10uA, VCE-5.0V.
52	2N3813*	11	PØ	Si	L17s		Pt-.35W;hFE-225 min. at IC-10uA, VCE-5.0V.
53	2N3836	11	N-Δ	Si	L35		Pt-1.0W;ton-500nsec;toff-1.0usec;BVCBO-80V;ICEX-500uA.
54	2N3837	11	N-Δ	Si	L35		Pt-1.0W;ton-500nsec;toff-1.0usec;BVCBO-100V;ICEX-500uA.
55	2N4017*	11	PØ	Si	L17x		Pt-600mW;hFE-60 min at VCE of 5.0V and IC of 1.0uA;IEBO-10nA max.
56	2N4018*	11	PØ	Si	L17x		Pt-600mW;hFE-60 min at VCE of 5.0V and IC of 1.0uA;IEBO-10nA max.
57	2N4019*	11	PØ	Si	L17x		Pt-600mW;hFE-180 min at VCE of 5.0V and IC of 1.0uA;IEBO-10nA max.
58	2N4939	11	P	Si	L17p		Pt-.60W;BVC1C2-200V max;hFE-50 min;BVCBO-50 max;IC-50mA max.
59	2N4942	11	PØ	Si	L17d		Pt-.35W;BVCBO-50 max;hFE-50 min;ICBO-.02uA max.
60	2N4955*	11	N	Si	L2s		Pt-.45W;NF-4.5db at 10kohms.
61	2N4956*	11	N	Si	L2s		Pt-.45W;NF-4.5db at 10kohms.
62	2N4974	11	P	Si	L55		Darl.Ampl;Pt-.80W;BVCBO-40V;BVCEO-30V;BVEBO-10V;hFE-5000 min.
63	2N4975	11	P	Si	L55		Darl.Ampl;Pt-.80W;BVCBO-40V;BVCEO-30V;BVEBO-10V;hFE-1000 min.
64	2N5254*	11	P-Ø	Si	L17t		Pt-.43W;hFE-50 min;VBCO-40V;VEBO-5.0V;ft-40M min.
65	2N5305	11	N	Si	L3f		Pt-.40W;VCB1-25V max;VCE-25V max;IC-.20A max;hFE-2000 min;ft-60Mc min
66	2N5306	11	N	Si	L3f		Pt-.4W;VCB1-25V max;VCE2-25V max;IC-.2A max;hFE-7000 min;ft-60Mc min
67	2N5307	11	N	Si	L3f		Pt-.4W;VCB1-40V max;VCE2-40V max;IC-.2A max;hFE-2000 min;ft-60Mc min
68	2N5308	11	N	Si	L3f		Pt-.4W;VCB1-40V max;VCE2-40V max;IC-.2A max;hFE-7000 min;ft-60Mc min
69	2N5390	11	N	Si	L35a		Pt-1W;VCB1-120V max;VCE-80V max;IC-2A max;hFE-2000 min;ft-40Mc min
70#	2V205*	11	P-DPE	Si	L17a		Pt-.45W;ft-100Mc min;BVCBO-15V;hFE-55 at IC-10mA.
71#	2V435*	11	P-DPE	Si	L17a		VCEO-25V min;Pt-.55W;ft-100Mc min;ICBO-.50nA;ton-50ns;toff-100ns.
72	4JD12X009	11	N-PL	Si	L42		Contains 3-2N1613 transistors and a 1N914 diode;Pt-300mW.
73	12X006	11	N-PL	Si	L31		Emitter Coupled Logic or/and gate;Pt-100mW;hFE-120;VCEO-15V
74	12X008	11	N-PL	Si	L30		Functional Device and gate;Pt-100mW;hFE-120max;VCEO-15V
75	12X040	11	N-PL	Si			Active Functional Device;VCEO-60V;hFE1/hFE2-1.0;ΔVBE-5.0mV
76	12X058	11	N-PL	Si			Active Functional Device;VCEO-60V;hFE1/hFE2-1.0;ΔVBE-10mV
77	12X059	11	N-PL	Si			Active Functional Device;VCEO-60V;hFE1/hFE2-1.0;ΔVBE-5.0mV
78▼	40675*	11	N-PE	Si	L68		VCEO-35V;VEBO-3.5V;Pt-100W;IC-10A;ICES-30mA max;Cob-250pF max.
79#	BFV70	11		Si	TO84		Pt-.4W;BVCBO-60V min;hFE-100 min;ft-200MHz min;Toff-40ns max.
80#	BFV71	11		Si	TO84		Pt-.4W;BVCBO-60V min;hFE-100 min;ft-350MHz min;Toff-18ns max.
81#	BFV73	11		Si	TO84		Pt-.4W;BVCBO-60V min;hFE-40 min;ft-350MHz min;Toff-18ns max.
82#	BFV73N	11		Si	MP126		Pt-.4W;BVCBO-60V min;hFE-40 min;ft-350MHz min;Toff-18ns max.
83#	BFV75	11	Ø	Si	TO89		Pt-.4W;BVCEO-45V min;IC-30mA max;ft-30MHz min.
84#	BFV76	11		Si	TO89		Pt-.4W;BVCEO-15V min;VEC(off)-500uV;Rec(on)-20 ohms.
85#	BFV91	11		Si	TO84		Pt-.4W;BVCEO-12V min;ft-400MHz min;Toff-90us max.
86#	BFV91N	11		Si	MP126		Pt-.4W;BVCEO-12V min;ft-400MHz min;Toff-90us max.
87#	BFV93A	11		Si	TO84		BVCBO-60V min;hFE-100 min;VCE(sat)-.40V max.
88#	BFV93AN	11		Si	MP126		BVCBO-60V min;hFE-100 min;VCE(sat)-.40V max.
89#	BFV95	11		Si	TO84		BVCBO-60V min;hFE-40 min;VCE(sat)-.40V max.
90#	BFV95N	11		Si	MP126		BVCBO-60V min;hFE-40 min;VCE(sat)-.40V max.
91#	BFX67	11	N	Si	L4		Pc-.50W;hFE-7000 max. pulsed at IC-100mA and VCE-10V.
92#	BSX85*	11	PDPLΔØ	Si	TO76		Pt-.60W each;rds(ON)-300 ohms;tr-30nsec;td-20nsec;toff-50ns.
93	CS2641*	11	N-DPL	Si	L2r		Pt-.30W;hFE-65 min. at IC-1mA;NF-4.0db max;IEBO-10nA at VEB-5.0V.
94	CS2644*	11	N-DPL	Si	L2r		Pt-.30W;hFE-130 min. at IC-1mA;NF-4.0db max;IEBO-10nA at VEB-5.0V.
95	CS29010*	11	N-DPL	Si	L2r		Pt-.30W;hFE-200 max.at IC-.10mA;NF-4.0db max;IEBO-10nA at VEB-5.0V.
96	CS29013*	11	N-DPL	Si	L2r		Pt-.30W;hFE-300 max.at IC-.10mA;NF-4.0db max;IEBO-10nA at VEB-5.0V.
97	D12X010	11	N-PL	Si	L29		Two stage amplifier;VCEO-60V;hFE-40.
98	D12X011	11	N-PL	Si	L27		Three stage amplifier with Darlington input;hFE-40.
99	D12X012	11	N-PL	Si	L28		Darlington differential amplifier;hFE-9000 min. at 1mA;VCBO-100V.
100	D12X014	11	N-PL	Si	L26		Three Stage Amplifier with Darlington output;hFE-40.
101	D12X015	11	N-PL	Si	L11		Active Functional Device;VCEO-60V;hFE1/2-1.0;ΔVBE-10mV.
102	D16P1	11	N	Si	L3e		Darlington Amp.;hFE-2000 min;Pt-320mW;Zin-500k;BVCEO-12V.
103	D16P2	11	N	Si	L3e		Darlington Amp.;hFE-7.0k-15k typ.;Pt-320mW;Zin-500k;BVCEO-12V.
104	D28C1	11	Nt	Si	X51	F	Darlington Amp;hFE-10k-60k;VCE(sat)-1.5V;IC-.50A;Pt-1W.
105	D28C2	11	Nt	Si	X51	F	Darlington Amp;hFE-40k-120k;VCE(sat)-1.5V;IC-.50A;Pt-1W.
106	D28C3	11	Nt	Si	X51	F	Darlington Amp;hFE-90k min;VCE(sat)-1.5V;IC-.50A;Pt-1W.
107	D28C4	11	Nt	Si	X51	F	Darlington Amp;hFE-10k-60k;VCE(sat)-1.5V;IC-.50A;Pt-1W.
108	D28C5	11	Nt	Si	X51	F	Darlington Amp;hFE-40k-120k;VCE(sat)-1.5V;IC-.50A;Pt-1W.
109	D28C7	11	Nt	Si	X51	F	Darlington Amp;hFE-10k-60k;VCE(sat)-1.5V;IC-.50A;Pt-1W.
110	D28C8	11	Nt	Si	X51	F	Darlington Amp;hFE-40k-120k;VCE(sat)-1.5V;IC-.50A;Pt-1W.

13. MISCELLANEOUS TRANSISTORS

LINE No.	2 TYPE No.	1 CATEGORY USE	STRUCTURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1#	FI0049*	11	PDPL∅	Si	L18a		Pt-1.7W max;IDSS-1.0nA max;BVDSS-30V max;BVGSS-25V max.
2	FT701	11	P-DPL	Si	L51a		Pt-.60W; VDSS,VSDS-30V; ID-200mA; IG-10mA.
3	FT4017	11	P-DPE	Si	L17e		BVCBO-80V;BVCEO-80V;IC-200mA max;hFE-100 min. at 10uA, 5.0V.
4	FT4018	11	P-DPE	Si	L17e		BVCBO-60V;BVCEO-60V;IC-200mA max;hFE-100 min. at 10uA, 5.0V.
5	FT4019	11	P-DPE	Si	L17e		BVCBO-45V;BVCEO-45V;IC-200mA max;hFE-250 min. at 10uA, 5.0V.
6	G125F*	11	N	Si	L49a		4 Chbn.FET Choppers;Pt-375mW;BVGSS-40V;ID(off) and IS(off)-.05nA.
7	G126F*	11	N	Si	L49a		4 Chan.FET Choppers;Pt-375mW;BVGSS-40V;ID(off) and IS(off)-.05nA.
8	G127F*	11	N	Si	L49a		4 Chan.FET Choppers;Pt-375mW;BVGSS-40V;ID(off) and IS(off)-.10nA.
9	G128F*	11	N	Si	L49a		4 Chan.FET Choppers;Pt-375mW;BVGSS-40V;ID(off) and IS(off)-.10nA.
10	G129F*	11	N	Si	L49b		4 Chan.FET Choppers;Pt-375mW;BVGSS-40V;ID(off) and IS(off)-.05nA.
11	G130F*	11	N	Si	L49b		4 Chan.FET Choppers;Pt-375mW;BVGSS-40V;ID(off) and IS(off)-.05nA.
12	G131F*	11	N	Si	L49b		4 Chan.FET Choppers;Pt-375mW;BVGSS-40V;ID(off) and IS(off)-.10nA.
13	G132F*	11	N	Si	L49b		4 Chan.FET Choppers;Pt-375mW;BVGSS-40V;ID(off) and IS(off)-.10nA.
14	L14B	11	N-PLt	Si	TO98	B	Photo-Darlington Amp;Pt-150mW;IL-100mA;VCEO-12V;VCBO-18V.
15♦	M106*	11	P-MOS△	Si	L51b		FET;BVDSS-30V;BVGSS-30V;IGSS-100pA;rDS-120Ω;Pt-500mW;Cgss-4.0pF.
16▼	M107*	11	P-MOS	Si	L51b		FET;BVDSS-30V;BVGSS-30V;IGSS-100pA;rDS-120Ω;Pt-500mW.
17▼	M108*	11	P-MOS	Si	L51b		FET;BVDSS-30V;BVGSS-30V;IGSS-1.0pA;rDS-120Ω;Pt-500mW.
18	MD708*	11	N-AN	Si	L66a		Pt-400mW(both sides);ton-16ns max;toff-30ns max;ts-25ns max.
19	MD708F*	11	N-AN	Si	TO89		Pt-350mW(both sides);ton-16ns max;toff-30ns max;ts-25ns max.
20	MD918*	11	N-EA	Si	L66a		Pt-400mW(both sides);VCEO-15V;hFE-50 min. at 1.0mA and 5.0V.
21	MD918F*	11	N-EA	Si	TO89		Pd(both sides)-350mW;VCEO-15V;hFE-50 min at 1.0mA,5.0V.
22	MD2218*	11	N-AN	Si	L66a		Pt-600mW(both sides);td-20ns max;tr-40ns max;ts-280ns;tf-70ns.
23	MD2218A*	11	N-AN	Si	RO131b		Pt-600mW(both sides);td-15ns max;tr-30ns max;ts-250ns;tf-60ns.
24	MD2218AF*	11	N-AN	Si	TO89		Pd(both sides)-350mW;td-15ns max;tr-30ns max;ts-250ns max;tf-60ns
25	MD2218F*	11	N-EA	Si	TO89		Pd(both sides)-350mW;td-20ns max;tr-40ns max;ts-280ns max;tf-70ns
26	MD2219*	11	N-AN	Si	L66a		Pt-600mW(both sides);td-20ns max;tr-40ns max;ts-280ns;tf-70ns.
27	MD2219A*	11	N-AN	Si	L66a		Pt-600mW (both sides);td-15ns max;tr-30ns max;ts-250ns;tf-60ns.
28	MD2219AF*	11	N-EA	Si	TO89		Pd(both sides)-350mW;td-15ns max;tr-30ns max;ts-250ns max;tf-60ns
29	MD2219F*	11	N-EA	Si	TO89		Pd(both sides)-350mW;td-20ns max;tr-40ns max;ts-280ns max;tf-70ns
30	MD2369*	11	N-AN	Si	L66a		Pt-600mW(both sides);ton-15ns max;toff-20ns max;ts-13ns max.
31	MD2369F*	11	N-AN	Si	TO89		Pt-350mW(both sides);ton-15ns max;toff-20ns max;ts-13ns max.
32	MD2904*	11	P-AN	Si	L17g		Pt-600mW;td-12ns max;tr-35ns max;ts-100ns max;tf-40ns max.
33	MD2904A*	11	P-AN	Si	L17g		Pt-600mW;td-12ns max;tr-35ns max;ts-100ns max;tf-40ns max.
34	MD2904AF*	11	P-AN	Si	L17d		Pt-600mW;td-12ns max;tr-35ns max;ts-100ns max;tf-40ns max.
35	MD2904F*	11	P-AN	Si	L17d		Pt-600mW;td-12ns max;tr-35ns max;ts-100ns max;tf-40ns max.
36	MD2905*	11	P-AN	Si	L17g		Pt-600mW;td-12ns max;tr-35ns max;ts-100ns max;tf-40ns max.
37	MD2905A*	11	P-AN	Si	L17g		Pt-600mW;td-12ns max;tr-35ns max;ts-100ns max;tf-40ns max.
38	MD2905AF*	11	P-AN	Si	L17d		Pt-600mW;td-12ns max;tr-35ns max;ts-100ns max;tf-40ns max.
39	MD2905F*	11	P-AN	Si	L17d		Pt-600mW;td-12ns max;tr-35ns max;ts-100ns max;tf-40ns max.
40	MD3133*	11	P-AN	Si	L17c		Pd-600mW;ton-75ns max;toff-150ns max;hFE-25 min at 1.0mA;10V.
41	MD3133F*	11	P-AN	Si	TO89		Pd-350mW;ton-75ns max;toff-150ns max;hFE-25 min at 1.0mA;10V.
42	MD3134*	11	P-AN	Si	L17c		Pd-600mW;ton-75ns max;toff-150ns max;hFE-50 min at 1.0mA;10V.
43	MD3134F*	11	P-AN	Si	TO89		Pd-350mW;ton-75ns max;toff-150ns max;hFE-50 min at 1.0mA;10V.
44	MD3725*	11	N-AN△	Si	L2t		Pt-600mW;ton-45ns;toff-75ns;VCE(sat)-.26V.
45	MD3725F*	11	N-AN△	Si	L2f		Pt-350mW;ton-45ns;toff-75ns;VCE(sat)-.26V.
46	MD4957*	11	P-AN	Si	L17k		Pt-400mW;hFE-150 max;NF-2.6 typ;ft-1000 min.
47	MEM550*	11	P	Si	L53		Pt-112mW;VGST-6.0V max;BVDSS-50V;BVGSS-40V;ID(ON)-5.0mA;ID-25mA.
48	MHM1001	11	N-PL	Si	TO5	A∅	Pc-1.34W; BVCBO-60V; BVCEO-40V; hFE-3000 min. at IC-100mA
49	MHM1101	11	N-PL	Si	TO18	A∅	Pc-1.0W; BVCBO-60V; BVCEO-40V; hFE-3000 min. at IC-100mA
50	MHM1201	11	N-PL	Si	TO47		Pt-260mW; VCBO-60V min; VCEO-40V min; VEBO-12V min; TJ-125deg.C
51	MHM2001	11	N-PL	Si	R89c	GG	Pt-2.0W at 100°C;BVCBO-120V;IC-3.0A;hFE-1.0k min.
52	MHM2011	11	N-PL	Si	R89a	GG	Pt-2.0W max;BVCBO-60V min;BVCEO-40V min;BVEBO-15V min;IC-3.0A max.
53	MHM2012	11	N-PL	Si	R89a	GG	Pt-2.0W max;BVCBO-80V min;BVCEO-60V min;BVEBO-15V min;IC-3.0A max.
54	MHM2013	11	N-PL	Si	R89a	GG	Pt-2.0W max;BVCBO-100V min;BVCEO-80V min;BVEBO-15V min;IC-3.0A max.
55	MHM2014	11	N-PL	Si	R89a	GG	Pt-2.0W max;BVCBO-60V min;BVCEO-40V min;BVEBO-15V min;IC-3.0A max.
56	MHM2015	11	N-PL	Si	R89a	GG	Pt-2.0W max;BVCBO-80V min;BVCEO-60V min;BVEBO-15V min;IC-3.0A max.
57	MHM2016	11	N-PL	Si	R89a	GG	Pt-2.0W max;BVCBO-100V min;BVCEO-80V min;BVEBO-15V min;IC-3.0A max.
58	MHM2017	11	N-PL	Si	R89a	GG	Pt-2.0W max;BVCBO-60V min;BVCEO-40V min;BVEBO-15V min;IC-3.0A max.
59	MHM2101	11	N-PL	Si	MT42a		Pt-12.5W at 100 deg.C;BVCBO-120V;IC-3.0A;hFE-1000 min.
60	MHM2111	11	N-PL	Si	MT42		Pt-12.5W max;BVCBO-60V min;BVCEO-40V min;BVEBO-15V min;IC-3A max.
61	MHM2112	11	N-PL	Si	MT42		Pt-12.5W max;BVCBO-80V min;BVCEO-60V min;BVEBO-15V min;IC-3A max.
62	MHM2113	11	N-PL	Si	MT42		Pt-12.5W max;BVCBO-100V min;BVCEO-80V min;BVEBO-15V min;IC-3A max.
63	MHM2114	11	N-PL	Si	MT42		Pt-12.5W max;BVCBO-60V min;BVCEO-40V min;BVEBO-15V min;IC-3A max.
64	MHM2115	11	N-PL	Si	MT42		Pt-12.5W max;BVCBO-80V min;BVCEO-60V min;BVEBO-15V min;IC-3A max.
65	MHM2116	11	N-PL	Si	MT42		Pt-12.5W max;BVCBO-100V min;BVCEO-80V min;BVEBO-15V min;IC-3A max.
66	MHM2117	11	N-PL	Si	MT42		Pt-12.5W max;BVCBO-60V min;BVCEO-40V min;BVEBO-15V min;IC-3A max.
67	MHM2201	11	N-PL	Si	MT53	GH	Pt-12.5W at 100°C;BVCBO-120V;IC-3.0A;hFE-1000 min.
68	MHM2211	11	N-PL	Si	MT53	GH	Pt-12.5Wmax;BVCBO-60V;BVCEO-40Vmin;BVEBO-15Vmin.
69	MHM2212	11	N-PL	Si	MT53	GH	Pt-12.5Wmax;BVCBO-80V;BVCEO-60Vmin;BVEBO-15Vmin.
70	MHM2213	11	N-PL	Si	MT53	GH	Pt-12.5Wmax;BVCBO-100V;BVCEO-80Vmin;BVEBO-15Vmin.
71	MHM2214	11	N-PL	Si	MT53	GH	Pt-12.5Wmax;BVCBO-60V;BVCEO-40Vmin;BVEBO-15Vmin.
72	MHM2215	11	N-PL	Si	MT53	GH	Pt-12.5Wmax;BVCBO-80V;BVCEO-60Vmin;BVEBO-15Vmin.
73	MHM2216	11	N-PL	Si	MT53	GH	Pt-12.5Wmax;BVCBO-100V;BVCEO-80Vmin;BVEBO-15Vmin.
74	MHM2217	11	N-PL	Si	MT53	GH	Pt-12.5Wmax;BVCBO-60V;BVCEO-40Vmin;BVEBO-15Vmin.
75	MQ3725*	11	N-AN△	Si	L56c		Pt-500mW;ton-45ns;toff-75ns;VCE(sat)-.26V.
76	MQ3799*	11	P-EA∅	Si	L56c		Pt-.50W;ft max-500Mc;hFE-300 to 900 at IC-1.0mA.
77	RA1	11	N	Si	TO12		Pc-.3W;BVCEO-45V;TC-.02%/deg.C at 0-70 deg.C;hFE-10min at .50mA
78	RA1A	11	N	Si	TO12		Pc-.3W;BVCEO-45V;TC-.005%/deg.C at 0-70 deg.C;hFE-10min at .50mA
79	RA1B	11	N	Si	TO12		Pc-.3W;BVCEO-45V;TC-.002%/deg.C at 0-70 deg.C;hFE-10min at .50mA
80	RA1C	11	N	Si	TO12		Pc-.3W;BVCEO-45V;TC-.001%/deg.C at 0-70 deg.C;hFE-10min at .50mA
81	RA2	11	N	Si	TO12		Pc-.3W;BVCEO-45V;TC-.02%/deg.C at 55-150 deg.C;hFE-40min at .50mA
82	RA2A	11	N	Si	TO12		Pc-.3W;BVCEO-45V;TC-.005%/deg.C at 55-150 deg.C;hFE-40min at .50mA
83	RA2B	11	N	Si	TO12		Pc-.3W;BVCEO-45V;TC-.002%/deg.C at 55-150 deg.C;hFE-40min at .50mA
84	RA3	11	N	Si	TO12		Pc-.3W;BVCEO-60V;TC-.02%/deg.C at 55-150 deg.C;hFE-30min at .50mA
85	RA3A	11	N	Si	TO12		Pc-.3W;BVCEO-60V;TC-.005%/deg.C at 55-150 deg.C;hFE-30min at .50mA
86	RA3B	11	N	Si	TO12		Pc-.3W;BVCEO-60V;TC-.002%/deg.C at 55-150 deg.C;hFE-30min at .50mA
87	RM3005	11	N		TO72		Darlington Amplifiers;Pd-.50W;hFE-2000 min;VCB-100V max.
88	RM3022	11	N-PL	Si	TO18	A∅	Darl. Ampl; Pc-1.8W max; BVCBO-60V; hFE-1600 min. at IC-10mA
89	S708*	11	N-PE	Si			Dual Chip;BVCBO-55V;BVCEO-30V;Cob-6.0pf;Po-4.0W.
90	S715*	11	N-PE	Si	TO39		Dual Chip;BVCBO-55V;BVCEO-30V;Cob-6.0pf;Po-2.5W.
91	SA2725*	11	N	Si	L2t		Pt-.6W;Sat.Res.-300 ohms max;hFE-250 at IC-1.0mA.
92	SA2726*	11	N	Si	L2t		Pt-.6W;Sat.Res.-300 ohms max;hFE-150 at IC-1.0mA.
93	SC1600*	11	P-MOS	Si	L18b		FET;gFS-400umhos;RIS-100T;Cgs-4.0pf;VT-7V.
94	SC1601*	11	P-MOS	Si	L18b		FET;gFS-400umhos;RIS-100T;Cgs-4.0pf;VT-7V.
95	SC1625*	11	P-MOS	Si	L18b		FET;gFS-400umhos;RIS-100T;Cgs-4.0pf;VT-6V.
96#	SI345P	11	P-DPL	Si	ZA17		Darl.Amp; BVCBO-50V; BVCEO-35V; hFE-300 min;BVEBO-12V;Pt-.60W
97#	SI346P	11	P-DPL	Si	ZA17		Darl.Amp; BVCBO-30V; BVCEO-20V; hFE-2000 min;BVEBO-12V;Pt-.60W
98#	SL305B	11	N-E*	Si	L63		Darlington Amps;Pt-.6W;BVCBO-50V;ft-600MHz;hFE-600 typ.at IE-.1mA.
99	SP10800	11	N-DPL	Si	TO89		BVCEO-45V,hFE-150min at 1.0mA-5V,ICBO-10nA max,NF-4.0db max
100	SP10811	11	P-DPE	Si	TO89		BVCEO-15V, hFE-35 min at 10mA-1.0V, ICBO-10nA max,Cobo-10pf max.
101	TD102	11		Si	L2u		ft-25MHz min;ICBO-50nA max;Sat.Res.-20 ohms max.
102	TD2219	11		Si	L2u		ft-250MHz min;ICBO-10nA max;Sat.Res.-2.7 ohms max.
103	TD2905	11		Si	L17m		ft-200MHz min;ICBO-10nA max;Sat.Res.-2.7 ohms max.
104	UC2139	11	N-PE∅	Si	L21b		FET;BVDSS 30V;ID(on)-6.0mA;gm-750umhos.
105	UC2148	11	N-PE∅	Si	L21b		FET;BVDSS 30V;ID(on)-15mA;gm-1000umhos.
106	UC2149	11	N-PE∅	Si	L21b		FET;BVDSS 50V;ID(on)-2.0mA;gm-2000umhos.
107▼	UC2766*	11	P-MOS△	Si			Pt-525mW;td-18n max;tr-36n max;toff-60n max;IG-10pA max;VSDS-30V min.
108	UD3005†	11	N-PE	Si	L56a		BVCBO-60V;BVCEO-40V;BVEBO-5.0V;hFE-100-300 at IC-150mA;ft-200Mc.
109	UD3006†	11	P-PE	Si	L56b		BVCBO-60V;BVCEO-40V;BVEBO-5.0V;hFE-100-300 at IC-150mA;ft-200Mc.
110	2N2451*	13	NDPE	Si	TO46	A	Rad. Res. Switch; Irradiation-10kT nyt.

13. MISCELLANEOUS TRANSISTORS

LINE No.	2 TYPE No.	1 CATEGORY USE	STRUCTURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1	2N5065*	13	N-PEΔ	Si	R83a	AØ	Pc-2.5W;hFE-19 typ. at VCE-.50V;ton-15nsec max;toff-35nsec max.
2	2N5106*	13	N	Si	TO39	A	Post Rad. of 300T nvt;ICBO-100nA;hFE-8.0 at VCE-10V;IC-150mA
3	2N5107*	13	N	Si	TO18	A	Post Rad. of 300T nvt;ICBO-100nA;hFE-8.0 at VCE-10V;IC-150mA
4♦	2N5144*	13	NΔ	Si	TO18	AØ	Post Rad. of 300T NVT;tr-35ns,td-10ns,ts-35ns,tf-30ns,MAX;ft-250MHz min.
5♦	2N5145*	13	NΔ	Si	TO39	AØ	Post Rad of 300T NVT;tr-35ns,td-10ns,ts-35ns,tf-30ns,MAX;ft-250MHz min.
6	2N5200*	13	N	Si	TO46	AØ	Pd-1.2W;Post Rad. of 300T nvt;hFE-10 min;ICES-.05uA max.
7	2N5201*	13	N	Si	TO46	AØ	Pd-1.2W;Post Rad. of 300T nvt;hFE-12 min;ICES-.05uA max.
8♦	2N5244*	13	P	Si	TO18	AØ	Pd-360mW;Post Rad-300T NVT;ICES-1.0A max;tr-40nS;ts-100nS;td-15nS;tf-50nS.
9	2N5292*	13	P	Si	TO18	AØ	Max.Rad.Level-300T-nvt;hFE-10min;tr-12ns,tf-15ns.
10	2N5332*	13	P Δ	Si	TO46	AØ	Max.Rad.Level-1000T NVT;hFE-10 min.pulsed;tr-8ns;ts-70ns;tf-16ns.
11	JAN2N5332*	13	PΔ	Si	TO46	AØ	Ipp-25mA max;Radiation-1000TNVT;tr-8.0ns max;tf-16ns max.
12	2N5399*	13	NΔ	Si	TO46	AØ	Max.Rad.-1000T nvt;Post Rad. hFE-12 min;ICBO-10uA;tr-8ns;tf-16ns.
13	JAN2N5399*	13	NΔ	Si	TO46	AØ	Ipp-25mA max;Radiation-1000TNVT;tr-8.0ns max;tf-16ns max.
14	2N5417*	13	NΔ	Si	TO39	AØ	Max.Rad.-1000T nvt;Post Rad. hFE-8 pulsed;tr-18ns;ICBO-10uA;tf-60ns.
15	2N5527*	13	N	Si	R81j	AØ	Max.Rad.Level-500T NVT;hFE-15 min pulsed;ICBO-1mA;VCE(sat)-6.7 max.
16	2N5528*	13	N	Si	TO59	AØ	Max.Rad.Level-500T NVT;hFE-15 min pulsed;ICBO-1mA;VCE(sat)-6.7 max.
17	2N5529*	13	N	Si	TO61	AØ	Max.Rad.Level-500T NVT;hFE-15 min pulsed;ICBO-1mA;VCE(sat)-6.7 max.
18	2N5530*	13	N	Si	TO61	A	Max.Rad.Level-500T NVT;hFE-15 min pulsed;ICBO-1mA;VCE(sat)-6.7 max.
19	2N5531*	13	N	Si	R81j	AØ	Max.Rad.Level-500T NVT;hFE-7 min.pulsed;ICBO-1mA;VCE(sat)-1 max.
20	2N5532*	13	N	Si	TO59	AØ	Max.Rad.Level-500T NVT;hFE-7 min.pulsed;ICBO-1mA;VCE(sat)-1 max.
21	2N5533*	13	N	Si	TO61	AØ	Max.Rad.Level-500T NVT;hFE-7 min.pulsed;ICBO-1mA;VCE(sat)-1 max.
22	2N5534*	13	N	Si	TO61	A	Max.Rad.Level-500T NVT;hFE-7 min.pulsed;ICBO-1mA;VCE(sat)-1 max.
23	2N5535*	13	N Δ	Si	TO61	AØ	Max.Rad.Level-500T NVT;hFE-15 min.pulsed;ICBO-1mA;td-25ns;tf-300ns.
24	2N5536*	13	N Δ	Si	TO61	A	Max.Rad.Level-500T NVT;hFE-15 min.pulsed;ICBO-1mA;td-25ns;tf-300ns.
25	2N5537*	13	N Δ	Si	TO61	AØ	Max.Rad.Level-500T NVT;hFE-10 min.pulsed;ICBO-2mA;td-25ns;tf-300ns.
26	2N5538*	13	N Δ	Si	TO61	A	Max.Rad.Level-500T NVT;hFE-10 min.pulsed;ICBO-2mA;td-25ns;tf-300ns.
27	BR100B*	13	N	Si	MT27	AØ	Max. Rad. Level-500T nvt;Post Rad hFE-25;ICBO-1.0mA
28	BR100D*	13	N	Si	TO60	A	Max. Rad. Level-500T nvt;Post Rad hFE-25;ICBO-1.0mA
29	BR101B*	13	N	Si	MT27	AØ	Max. Rad. Level-500T nvt;Post Rad hFE-15;ICBO-1.0mA
30	BR101D*	13	N	Si	TO60	A	Max. Rad. Level-500T nvt;Post Rad hFE-15;ICBO-1.0mA
31	TIXP39*	13	NPE	Si	TO59		At5.0Amps hFE is greater than 10 after irradiation 1x1014n/sq.cm.
32	TIXP40*	13	NPE	Si	TO59		At5.0Amps hFE is greater than 10 after irradiation 1x1014n/sq.cm.
33	PT2	14	N-PL	Si	R142	A	Sens.-15V/Gram Point Force max;Temp.Coeff.-.4V/deg.C;hFE-50;BVCEO-120
34	PT3	14	N-PL	Si	R142	A	Sens.-15V/Gram Point Force max;Temp.Coeff.-.1V/deg.C;hFE-50;BVCEO-120
35	PT22	14	N-PL	Si	TO46	A	Sens.-1.0V/Gram Point Force max;Temp.Coeff.-400mV/deg.C;hFE-50 max.
36	PT23	14	N-PL	Si	TO46	A	Sens.-1.0V/Gram Point Force max;Temp.Coeff.-100mV/deg.C;hFE-50 max.
37	PT52	14	N-PL	Si	TO46	A	Sens.-.80V/psid max;Temp.Coeff.-400mV/deg.C.;hFE-40 max;BVCEO-120
38	PT53	14	N-PL	Si	TO46	A	Sens.-.80V/psid max;Temp.Coeff.-100mV/deg.C.;hFE-40 max;BVCEO-120
39	TH2221	15	N-PE	Si	u48	TØ	2N2221 chip;Aluminum Contacts;Gold Metallization on back.
40	TH2221A	15	N-PE	Si	u48	TØ	2N2221A chip;Aluminum Contacts;Gold Metallization on back.
41	TH2222	15	N-PE	Si	u48	TØ	2N2222 chip;Aluminum Contacts;Gold Metallization on back.
42	TH2222A	15	N-PE	Si	u48	TØ	2N222A chip;Aluminum Contacts;Gold Metallization on back.
43	TH2906	15	P-PE	Si	u48	TØ	2N2906 chip;Aluminum Contacts;Gold Metallization on back.
44	TH2906A	15	P-PE	Si	u48	TØ	2N2906A chip;Aluminum Contacts;Gold Metallization on back.
45	TH2907	15	P-PE	Si	u48	TØ	2N2907 chip;Aluminum Contacts;Gold Metallization on back.
46	TH2907A	15	P-PE	Si	u48	TØ	2N2907A chip;Aluminum Contacts;Gold Metallization on back.
47	TH4384	15	N-PE	Si	u48	TØ	2N4384 chip;Aluminum Contacts;Gold Metallization on back.
48	TH4386	15	N-PE	Si	u48	TØ	2N4386 chip;Aluminum Contacts;Gold Metallization on back.
49	TH4413	15	P-PE	Si	u48	TØ	2N4413 chip;Aluminum Contacts;Gold Metallization on back.
50	TH4415	15	P-PE	Si	u48	TØ	2N4415 chip;Aluminum Contacts;Gold Metallization on back.

14. TRANSISTORS WITH U.S. MILITARY SPECIFICATIONS

IN TYPE NUMBER SEQUENCE

Department of Defense Index of Specifications and Standards dated 1 July 1969.

Device Manufacturers Qualifications on Test Reference Letter

MIL-S-19500E Military Specification, General Specification for Semiconductor Devices dated 1 April 1968, Amendment 1 dated 25 March 1969, and Supplement A dated 29 April 1969.

MIL-S-38103B (USAF) Military Specifications, General Specification for Established Reliability Semiconductor Devices dated 1 June 1964, and Supplement 1B dated 1 June 1964.

MIL-S-55191 (EL) Military Specification General Specification for Semiconductor (Micro-Elements) dated 7 May 1963 and Supplement 1 dated 7 May 1963.

MIL-STD-701G Military Standard, List of Standard Semiconductor Devices dated 27 May 1968 and Notice 3 dated 28 May 1969.

QPL-19500-37 Qualified Products List of Products Qualified Under Military Specification MIL-S-19500, dated 9 May 1969.

TYPE No.	MFRS.	MIL-S-19500/No.
1N4378	♦NONE	300A Ø
2N43A	GESY	6A
2N44A	GESY	6A
2N78A	GESY	90 AMEND #1 (USAF)
2N117	TEC TII	2B
2N118	TII	2B
2N119	TEC TII	2B
2N123	NONE	30 AMEND #2 (USAF)
2N128	SPR	9A
2N158	KSC	24C
2N167A	GESY	11B
2N174A	DEL MOTA	13B AMEND #2
2N220	RCA	1A
2N240	SPR	25B
2N297A	BEN KSC MOTA	36C Ø
2N326	KSC	40B Ø
2N328A	CRY RAYN SOD	110B
2N329A	CRY RAYN SOD	110B
2N331	MOTA	4D
2N333	GESY TEC TII	37C AMEND #1
2N333A	NONE	37C AMEND #1
2N335	GESY TEC TII	37C AMEND #1
2N335A	GESY TEC	37C AMEND #1
2N336	GESY TEC TII	37C AMEND #1
2N336A	NONE	37C AMEND #1
2N337	GESY TEC TII	69D AMEND #1
2N338	GESY TEC TII	69D AMEND #1
2N341	TEC TII	31B
2N342	TEC TII	16E
2N342A	NONE	16E
2N343	TEC TII	16E
2N358A	GIC TII	63C AMEND #1
2N384	RCA	27D
2N388	GIC RCA TII	65A
2N389	SIL SLA TII	173A
2N393	MOTA SPR	77C AMEND #1
2N396A	GESY	64D
2N398A	MOTA RCA	174A AMEND #1
2N404	GIC RCA TII	20B AMEND #1
2N404A	GIC RCA TII	20B AMEND #1
2N416	TII	56B (EL)
2N417	TII	56B (EL)
2N422	NONE	66B (NAVY)
2N424	SIL SLA TII	173A Ø
2N425	NONE	41B AMEND #1 (EL)
2N426	NONE	41B AMEND #1 (EL)
2N427	TII	41B AMEND #1 (EL)
2N428	GIC TII	44C AMEND #2
2N456B	BEN TII	217A
2N457B	BEN TII	217A
2N458B	BEN TII	217A
2N461	GESY MOTA	45A
2N463	NONE	70A AMEND #1 NAVY
2N464	NONE	49C (EL)
2N465	MOTA	49C (EL)
2N466M	GIC MOTA	51D AMEND #1
2N467	MOTA	49C (EL)
2N489A	†GESY †TII	75B AMEND #1
2N490A	†GESY †TII	75B AMEND #1
2N491A	†GESY †TII	75B ØØ AMEND #1
2N492A	†GESY †TII	75B AMEND #1
2N493A	†GESY †TII	75B AMEND #1
2N494A	†GESY †TII	75B AMEND #1
2N497	GESY TEC TII	74E AMEND #1
2N498	GESY TEC TII	74E AMEND #1
2N499	MOTA SPR	72C AMEND #2 (EL)
2N499A	MOTA SPR	72C AMEND #2 (EL)
2N501A	MOTA SPR	62B AMEND #1
2N502A	MOTA SPR TII	112C (EL)
2N502B	MOTA SPR TII	112C (EL)
2N526	GESY MOTA	60D
2N537	NONE	100A AMEND #1 (SigC)
2N539	KSC SOD	38C
2N539A	KSC SOD	38C
2N545	TEC	84A AMEND #1 (NAVY)
2N559	†NONE	152C AMEND #3 (EL)
2N560	NSC	73B
2N574	SOD	46B (EL)
2N575	SOD	46B (EL)
2N575A	SOD	46B (EL)
2N598	GIC	197C AMEND #2 (EL)
2N599	GIC	166C AMEND #3 (NAVY)
2N600	GIC	197C AMEND #2 (EL)
2N604M	NONE	221A (USAF)
2N650A	MOTA	175C
2N651A	MOTA	175C
2N652A	MOTA	175C
2N656	GESY TEC TII	74E AMEND #1
2N657	GESY TEC TII	74E Ø AMEND #1
2N665	KSC MOTA	58D
2N695	NONE	135A (NAVY)
2N696	CDC TII	99E AMEND #1
2N697	CDC TII	99E AMEND #1
2N700A	MOTA	123A (EL)
2N702	NSC TII	153B (EL)
2N703	MOTA NSC TII	153B (EL)
2N705	MOTA TII	86A AMEND #1
2N706	APX CDC FSC GIC ITT MOTA RAYN TEC TII	120B AMEND #1
2N708	†ITT †MOTA	312B
2N718A	†AML †CDC †FSC †MOTA †RAYN †TII †TRW	181C ØØ AMEND #2
2N720A	†CDC †TII	182C ØØ
2N744	FSC TII	273A (NAVY)
2N757A	NONE	218A
2N759A	SOD TII	218A
2N760A	AML SOD TII	218A Ø
2N869A	FSC MOTA †NONE	283B ØØ
2N910	AML CDC FSC †NONE RAYN TII	274B (EL)
2N911	CDC FSC †NONE RAYN TII	274B (EL)
2N912	FSC †NONE RAYN TII	274B (EL)
2N914	†MOTA	373 ØØ (USAF)
2N916	AML FSC MOTA RAYN TII TRW	271A Ø AMEND #2 (NAVY)
2N918	†AML †FSC †MOTA †NSC †RAYN †RCA †TEC †TII	301A ØØ AMEND #1
2N929	†AML †CDC FSC †GIC †ITT †MOTA †NSC †RAYN †SOD †TEC †TII	253B
2N930	†AML †CDC FSC †GIC †ITT †MOTA †NSC †RAYN †SOD †TEC †TII	253B ØØ

† — Qualification included TX Devices

* — No Technical Data Tabulated

Ø — Standard MIL-STD-701 Devices } For Additional Information See MIL-STD-701

§ — NATO

ØØ — USAF Preferred (TX Type Only)

14. TRANSISTORS WITH U.S. MILITARY SPECIFICATIONS

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS.	MIL-S-19500/No.
2N962	MOTA TII	258A AMEND #2 (NAVY)
2N964	MOTA TII	258A AMEND #2 (NAVY)
2N986	NONE	210B (NAVY)
2N987	APX	267 AMEND #2 (EL)
2N1008B	MOTA	196A AMEND #2 (EL)
2N1011	BEN DEL MOTA	67A (EL)
2N1016B	SIL WESY	102A Ø
2N1016C	SIL WESY	102A
2N1016D	SIL WESY	102A
2N1021A	BEN TII	217A
2N1022A	BEN TII	217A
2N1025M	CRY SOD	78B
2N1026M	CRY SOD	78B
2N1039	BEN KSC TII	89C AMEND #1
2N1041	BEN KSC TII	89C Ø AMEND #1
2N1042	BEN KSC TII	137B
2N1043	BEN KSC TII	137B
2N1044	BEN KSC TII	137B
2N1045	BEN KSC TII	137B
2N1046	TII	88 AMEND #1 (NAVY)
2N1047A	SIL SLA TII	176A AMEND #1
2N1048A	SIL SLA TII	176A AMEND #1
2N1049A	SIL SLA TII	176A AMEND #1
2N1050A	SIL SLA TII	176A AMEND #1
2N1051	NONE	216A (NAVY)
2N1072	NONE	163 AMEND #2 (SigC)
2N1094	NONE	161 AMEND #1 (SigC)
2N1118	CRY SPR	138B
2N1119	CRY SPR	139B AMEND #1
2N1120	BEN MOTA	68A Ø AMEND #1
2N1131	FSC MOTA RAYN TEC TII	177C
2N1132	FSC MOTA RAYN TEC TII	177C
2N1142	MOTA TII	87A (NAVY)
2N1157A	SOD	46B (EL)
2N1165	BEN MOTA	178B Ø AMEND #2 (NAVY)
2N1173	NONE	215 AMEND #2 (NAVY)
2N1174	NONE	215 AMEND #2 (NAVY)
2N1183	KSC RCA	143B AMEND #2 (EL)
2N1183A	KSC RCA	143B AMEND #2 (EL)
2N1183B	KSC RCA	143B AMEND #2 (EL)
2N1184	RCA	143B AMEND #2 (EL)
2N1184A	RCA	143B AMEND #2 (EL)
2N1184B	RCA	143B Ø AMEND #2 (EL)
2N1195	MOTA	71D AMEND #1
2N1197	NONE	165 (SigC)
2N1224	APX RCA	189A
2N1225	APX RCA	189A
2N1234	CRY SOD	179 AMEND #1 (SigC)
2N1302	GIC RCA TII	126B
2N1303	GESY GIC RCA TII	126B
2N1304	GIC RCA TII	126B
2N1305	GESY GIC RCA TII	126B
2N1306	GIC RCA TII	126B
2N1307	GESY GIC RCA TII	126B
2N1308	GIC RCA TII	126B
2N1309	GIC RCA TII	126B
2N1310	GIC	136A (NAVY)
2N1358	DEL MOTA	122C Ø
2N1411	SPR	133 AMEND #1 (SigC)
2N1412	DEL MOTA	76C Ø AMEND #1 (NAVY)
2N1412A	DEL MOTA	76C AMEND #1 (NAVY)
2N1450M	NONE	222A (USAF)
2N1469M	CRY SOD	78B Ø
2N1479	RCA SIL	207C (EL)
2N1480	RCA SIL	207C (EL)
2N1481	RCA SIL	207C (EL)
2N1482	RCA SIL	207C (EL)
2N1483	†RCA ‡SIL	180D
2N1484	†RCA ‡SIL	180D
2N1485	†RCA ‡SIL	180D ØⓁ
2N1486	†RCA ‡SIL	180D
2N1487	BEN RCA SIL	208B
2N1488	BEN RCA SIL	208B
2N1489	BEN RCA SIL	208B
2N1490	BEN RCA SIL	208B Ø
2N1493	RCA	247 AMEND #2 (EL)
2N1499A	SPR	170A (EL)
2N1500	SPR	125C
2N1506A	BEN TRW	265 Ø AMEND #1 (EL)
2N1549A	MOTA	332 (EL)
2N1550A	MOTA	332 Ø (EL)
2N1551A	MOTA	332 (EL)
2N1552A	MOTA	332 Ø (EL)
2N1553A	MOTA	331 AMEND #1 (EL)
2N1554A	MOTA	331 Ø AMEND #1 (EL)
2N1555A	MOTA	331 AMEND #1 (EL)
2N1556A	MOTA	331 Ø AMEND #1 (EL)
2N1557A	MOTA	330 AMEND #1 (EL)
2N1558A	MOTA	330 Ø AMEND #1 (EL)
2N1559A	MOTA	330 AMEND #1 (EL)
2N1560A	MOTA	330 Ø AMEND #1 (EL)
2N1613	†AML †CDC †FSC †MOTA †RAYN †TII †TRW	181C ØⓁ AMEND #2
2N1646M	NONE	223A (USAF)
2N1651	BEN MOTA	219A AMEND #4 (EL)
2N1652	BEN MOTA	219A AMEND #4 (EL)
2N1653	BEN MOTA	219A AMEND #4 (EL)
2N1711	†CDC †FSC †TII	225D ØⓁ
2N1714	TII	263A AMEND #2 (EL)
2N1715	TII	263A AMEND #2 (EL)
2N1716	TII	263A AMEND #2 (EL)
2N1717	TII	263A AMEND #2 (EL)
2N1722	†TEC ‡TII	262F ØⓁ
2N1724	†SIL †TEC ‡TII	262F ØⓁ
2N1853	RCA	171B (NAVY)
2N1854	RCA	172B (NAVY)
2N1890	†CDC †FSC †TII	225D ØⓁ
2N1893	†CDC †FSC ‡TII	182C ØⓁ
2N2015	RCA	248A AMEND #1 (EL)
2N2016	RCA	248A AMEND #1 (EL)
2N2034	†NONE	381 ØⓁ (EL)
2N2060	†AML FSC †GESY †MOTA †RAYN ‡TII	270B ØⓁ AMEND #2 (NAVY)
2N2079A	MOTA	340
2N2084	APX	213B
2N2150	†NONE	277C ØⓁ
2N2151	†NONE	277C ØⓁ
2N2218	†AML APX †GIC †MOTA †NSC †TEC ‡TII	251E ØⓁ AMEND #1
2N2218A	†AML †GESY †MOTA †NSC ‡TII	251E ØⓁ AMEND #1
2N2219	†AML APX †GESY †GIC †MOTA †NSC †TEC ‡TII	251E ØⓁ AMEND #1
2N2219A	†AML †GIC †MOTA †NSC ‡TII	251E ØⓁ AMEND #1
2N2221	†AML APX †CDC †GIC †ITT †MOTA †NSC †SPR ‡TII	255E ØⓁ AMEND #1
2N2221A	†AML †GIC †ITT †MOTA †NSC †SPR ‡TII	255E ØⓁ AMEND #1
2N2222	†AML APX †CDC †GIC †ITT †MOTA †NSC †SPR †TEC †TII TRW	255E ØⓁ AMEND #1
2N2222A	†AML †GIC †ITT †MOTA †NSC †SPR †TII TRW	255E ØⓁ AMEND #1

† — Qualification included TX Devices

* — No Technical Data Tabulated

Ø — Standard MIL-STD-701 Devices

For Additional Information See MIL-STD-701

§ — NATO

Ⓛ — USAF Preferred (TX Type Only)

14. TRANSISTORS WITH U.S. MILITARY SPECIFICATIONS

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS.	MIL-S-19500/No.
2N2273	MOTA	244B (EL)
2N2369A	APX FSC †ITT †MOTA †NSC †RAYN †TII	317D ØⓋ
2N2377	CRY SPR	288 AMEND #2 (EL)
2N2378	CRY SPR	289 AMEND #3 (EL)
2N2417A	†NONE	75B AMEND #1
2N2418A	†NONE	75B AMEND #1
2N2419A	†NONE	75B AMEND #1
2N2420A	†NONE	75B AMEND #1
2N2421A	†NONE	75B AMEND #1
2N2422A	†NONE	75B AMEND #1
2N2432	†CRY †NSC †TEC †TII	313A ØⓋ
2N2432A	†CRY †TEC †TII	313A ØⓋ
2N2481	FSC †MOTA †RAYN †TII	268B ØⓋ AMEND #1 (NAVY)
2N2484	†AML †RAYN	376 (USAF)
2N2497	†NONE	378A (USAF)
2N2498	†NONE	378A (USAF)
2N2499	†NONE	378A (USAF)
2N2500	†NONE	378A (USAF)
2N2528	MOTA	309 AMEND #1 (NAVY)
2N2553	BEN KSC TII	89C AMEND #1
2N2555	BEN KSC TII	89C AMEND #1
2N2557	BEN KSC TII	89C AMEND #1
2N2559	BEN KSC TII	89C AMEND #1
2N2604	NSC SOD	354 Ø AMEND #2 (EL)
2N2605	NSC SOD	354 Ø AMEND #2 (EL)
2N2606	AML SIX	292 Ø AMEND #2 (NAVY)
2N2607	AML SIX	294 Ø AMEND #2 (NAVY)
2N2608	AML SIX	295 Ø AMEND #2 (NAVY)
2N2609	AML SIX	296 Ø AMEND #2 (NAVY)
2N2631	NONE	303 AMEND #2 (NAVY)
2N2639	†NONE	316A AMEND #1 (USAF)
2N2642	†AML †TII	316A AMEND #1 (USAF)
2N2708	AML MOTA RCA	302 AMEND #1 (EL)
2N2834	MOTA	310 Ø AMEND #1 (NAVY)
2N2857	†MOTA †RCA	343 ØⓋ AMEND #2 (USAF)
2N2858	†NONE	381 ØⓋ (EL)
2N2859	†NONE	381 ØⓋ (EL)
2N2876	NONE	303 AMEND #2 (NAVY)
2N2880	†SOD	315B AMEND #1 (USAF)
2N2904	†AML †GIC †MOTA †NSC †SPR †TEC †TII	290B ØⓋ AMEND #1
2N2904A	†AML †MOTA †NSC †RAYN †TEC †TII	290B ØⓋ AMEND #1
2N2905	†AML †GIC †MOTA †NSC †RAYN †SPR †TEC †TII	290B ØⓋ AMEND #1
2N2905A	†AML †MOTA †NSC †RAYN †TEC †TII	290B ØⓋ AMEND #1
2N2906	†AML GIC †MOTA †NSC †RAYN †TEC †TII	291B ØⓋ AMEND #1
2N2906A	†AML GIC †MOTA †NSC †RAYN †TEC †TII	291B ØⓋ AMEND #1
2N2907	GIC †ITT †MOTA †NSC †RAYN †TEC †TII	291B ØⓋ AMEND #1
2N2907A	†AML †GIC †MOTA †NSC †RAYN †TEC †TII	291B ØⓋ AMEND #1
2N2911	†NONE	381 ØⓋ (EL)
2N2919	†AML FSC SOD	355A ØⓋ
2N2920	†AML FSC †NSC †RAYN SOD †UCC	355A ØⓋ
2N2944A	†NONE	382 ØⓋ AMEND #1 (USAF)
2N2945A	†TII	382 ØⓋ AMEND #1 (USAF)
2N2946A	†TII	382 ØⓋ AMEND #1 (USAF)
2N2996	NONE	360 (NAVY)
2N2997	NONE	360 (NAVY)
2N3013	FSC TII	287 AMEND #3 (NAVY)
2N3019	†RAYN †TEC	391 ØⓋ AMEND #2 (USAF)
2N3055	†BEN	407 AMEND #1 (USAF)
2N3057A	†NONE	391 ØⓋ AMEND #2 (USAF)
2N3127	MOTA	346 AMEND #1 (EL)
2N3250A	†MOTA †RAYN	323A AMEND #2 (NAVY)
2N3251A	†MOTA †RAYN †TII	323A ØⓋ AMEND #2 (NAVY)
2N3253	MOTA TII	347 Ø (NAVY)
2N3329	†NONE	378A (USAF)
2N3330	†NONE	378A (USAF)
2N3331	†NONE	378A (USAF)
2N3332	†NONE	378A (USAF)
2N3375	†ITT †MOTA NSC †RCA	341B ØⓋ
2N3418	†NONE	393 ØⓋ AMEND #2 (USAF)
2N3419	†NONE	393 ØⓋ AMEND #2 (USAF)
2N3420	†NONE	393 ØⓋ AMEND #2 (USAF)
2N3421	†NONE	393 ØⓋ AMEND #2 (USAF)
2N3439	RCA	368 Ø (NAVY)
2N3440	RCA	368 Ø (NAVY)
2N3441	RCA	369 Ø AMEND #1 (NAVY)
2N3442	RCA	370 Ø AMEND #1 (NAVY)
2N3444	MOTA	347 Ø (NAVY)
2N3449	MOTA	338 AMEND #1 (USAF)
2N3467	†MOTA	348 Ø AMEND #2 (NAVY)
2N3468	†MOTA	348 Ø AMEND #2 (NAVY)
2N3485A	†MOTA	392 ØⓋ (USAF)
2N3486A	†MOTA	392 ØⓋ (USAF)
2N3498	†MOTA	366A ØⓋ (EL)
2N3499	†MOTA	366A ØⓋ (EL)
2N3500	†MOTA	366A ØⓋ (EL)
2N3501	†MOTA	366A ØⓋ (EL)
2N3506	MOTA †NONE	349A Ø
2N3507	MOTA †NONE	349A Ø
2N3553	†ITT †MOTA NSC †RCA	341B ØⓋ
2N3584	NONE	384 Ø AMEND #1 (NAVY)
2N3585	NONE	384 Ø AMEND #1 (NAVY)
2N3634	†MOTA	357B ØⓋ (EL)
2N3635	†MOTA	357B ØⓋ (EL)
2N3636	†MOTA	357B ØⓋ (EL)
2N3637	†MOTA	357B ØⓋ (EL)
2N3700	†RAYN	391 ØⓋ AMEND #2 (USAF)
2N3713	†NONE	408 ØⓋ (EL)
2N3714	†NONE	408 ØⓋ (EL)
2N3715	†NONE	408 ØⓋ (EL)
2N3716	†NONE	408 ØⓋ (EL)
2N3735	†NONE	395 AMEND #2 (USAF)
2N3737	†NONE	395 AMEND #2 (USAF)
2N3739	†NONE	402 (USAF)
2N3742	†NONE	405 (EL)
2N3743	†NONE	397 (EL)
2N3749	†SOD	315B AMEND #1 (USAF)
2N3763	†NONE	396 AMEND #1 (USAF)

† — Qualification included TX Devices

* — No Technical Data Tabulated

Ø — Standard MIL-STD-701 Devices } For Additional Information See MIL-STD-701

§ — NATO

Ⓥ — USAF Preferred (TX Type Only)

14. TRANSISTORS WITH U.S. MILITARY SPECIFICATIONS

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS.	MIL-S-19500/No.
2N3765	†NONE	396 AMEND #1 (USAF)
2N3771	†NONE	413 (USAF)
2N3772	†NONE	413 (USAF)
2N3789	†NONE	379A ØØ (EL)
2N3790	†NONE	379A ØØ (EL)
2N3791	†NONE	379A ØØ (EL)
2N3792	†NONE	379A ØØ (EL)
2N3810	MOTA TII	336 Ø AMEND #2 (NAVY)
2N3811	MOTA	336 Ø AMEND #2 (NAVY)
2N3821	†AML	375A ØØ
2N3822	†AML	375A ØØ
2N3823	†AML †TII	375A ØØ
2N3846	†NONE	412 AMEND #1 (USAF)
2N3847	†NONE	412 AMEND #1 (USAF)
2N3866	†NONE	398
2N3867	†NONE	350A ØØ
2N3868	†NONE	350A ØØ
2N3902	†DEL	371 ØØ AMEND #2 (USAF)
2N3959	†NONE	399 ØØ
2N3960	†MOTA	399 ØØ
2N3996	†NONE	374 ØØ AMEND #1 (USAF)
2N3997	†NONE	374 ØØ AMEND #1 (USAF)
2N3998	†NONE	374 ØØ AMEND #1 (USAF)
2N3999	†NONE	374 ØØ AMEND #1 (USAF)
2N4150	†NONE	394 ØØ AMEND #1 (USAF)
2N4440	†RCA	341B
2N4449	†NONE	317D ØØ
2N4453	†NONE	283B
2N4856	†NONE	385 ØØ (USAF)
2N4857	†NONE	385 ØØ (USAF)
2N4858	†NONE	385 ØØ (USAF)
2N4859	†NONE	385 ØØ (USAF)
2N4860	†NONE	385 ØØ (USAF)
2N4861	†NONE	385 ØØ (USAF)
2N4865	†NONE	380A ØØ AMEND #1 (EL)
2N4926	†NONE	405 (EL)
2N4927	†NONE	405 (EL)
2N4930	†NONE	397 (EL)
2N4931	†NONE	397 (EL)
2N4947	†NONE	388 ØØ (USAF)
2N4948	†MOTA	388 ØØ (USAF)
2N4949	†MOTA	388 ØØ (USAF)
2N5156	NONE	416 AMEND #2 (EL)
2N5237	†NONE	394 AMEND #1 (USAF)
2N5238	†NONE	394 AMEND #1 (USAF)
2N5250	†NONE	380A ØØ AMEND #1 (EL)
2N5251	†NONE	380A ØØ AMEND #1 (EL)
2N5232	†NONE	409 (USAF)
2N5399	†NONE	410 (USAF)
2N5581	†NONE	423 (USAF)
2N5582	†NONE	423 (USAF)
2N35	TII	80D
3N74	†NONE	390 ØØ (USAF)
3N75	†TII	390 ØØ (USAF)
3N76	†TII	390 ØØ (USAF)
3N93	NONE	363 Ø AMEND #1 (NAVY)
3N108	TII	361 Ø (NAVY)
3N127	†NONE	390 ØØ (USAF)

TYPE No.	MFRS.	MIL-S-55191/No.
55191/33	NONE	33 (EL)
55191/34	NONE	34 (EL)
55191/36	NONE	36

† — Qualification included TX Devices

* — No Technical Data Tabulated

Ø — Standard MIL-STD-701 Devices

For Additional Information See MIL-STD-701

§ — NATO

ØØ — USAF Preferred (TX Type Only)

INCH-TO-MILLIMETER CONVERSION

(For Converting Drawing Measurements — Section 15 — to Millimeters)

Inches	Millimeters	Inches	Millimeters	Inches	Millimeters	Inches	Millimeters	Inches	Millimeters
.00394	.1	.11024	2.8	.22	5.588	.33	8.382	.4375	11.1125
.00787	.2	.11417	2.9	.22047	5.6	.33071	8.4	.44	11.176
.01	.254	.11811	3.0	.22441	5.7	.33465	8.5	.44094	11.2
.01181	.3	.12	3.048	.22835	5.8	.33858	8.6	.44488	11.3
.015625	.3969	.12205	3.1	.23	5.842	.34	8.636	.44882	11.4
.01575	.4	.125	3.175	.23228	5.9	.34252	8.7	.45	11.430
.01969	.5	.12598	3.2	.234375	5.9531	.34375	8.7312	.45276	11.5
.02	.508	.12992	3.3	.23622	6.0	.34646	8.8	.453125	11.5094
.02362	.6	.13	3.302	.24	6.096	.35	8.89	.45669	11.6
.02756	.7	.13386	3.4	.24016	6.1	.35039	8.9	.46	11.684
.03	.762	.13780	3.5	.24409	6.2	.35433	9.0	.46063	11.7
.03125	.7938	.14	3.556	.24803	6.3	.35827	9.1	.46457	11.8
.0315	.8	.140625	3.5719	.25	6.35	.359375	9.1281	.46850	11.9
.03543	.9	.14173	3.6	.25197	6.4	.36	9.144	.46875	11.9062
.03937	1.0	.14567	3.7	.25591	6.5	.36220	9.2	.47	11.938
.04	1.016	.14961	3.8	.25984	6.6	.36614	9.3	.47244	12.0
.04331	1.1	.15	3.810	.26	6.604	.37	9.398	.47638	12.1
.046875	1.1906	.15354	3.9	.26378	6.7	.37008	9.4	.48	12.192
.04724	1.2	.15625	3.9688	.265625	6.7469	.37402	9.5	.48031	12.2
.05	1.27	.15748	4.0	.26772	6.8	.375	9.525	.48425	12.3
.05118	1.3	.16	4.064	.27	6.858	.37795	9.6	.484375	12.3031
.05512	1.4	.16142	4.1	.27165	6.9	.38	9.652	.48819	12.4
.05906	1.5	.16535	4.2	.27559	7.0	.38189	9.7	.49	12.446
.06	1.524	.16929	4.3	.27953	7.1	.38583	9.8	.49213	12.5
.0625	1.5875	.17	4.318	.28	7.112	.38976	9.9	.49606	12.6
.06299	1.6	.171875	4.3656	.28125	7.1438	.39	9.906	.50	12.7
.06693	1.7	.17323	4.4	.28346	7.2	.390625	9.9219		
.07	1.778	.17717	4.5	.28740	7.3	.39370	10.0	.52362	13.3
.07087	1.8	.18	4.572	.29	7.366	.39764	10.1	.55	13.970
.07480	1.9	.18110	4.6	.29134	7.4	.40	10.16	.57480	14.6
.078125	1.9844	.18504	4.7	.29528	7.5	.40157	10.2	.60	15.24
.07874	2.0	.1875	4.7625	.296875	7.5406	.40551	10.3	.625	15.875
.08	2.032	.18898	4.8	.29921	7.6	.40625	10.3188	.65	16.510
.08268	2.1	.19	4.826	.30	7.62	.40945	10.4	.67323	17.1
.08661	2.2	.19291	4.9	.30315	7.7	.41	10.414	.70	17.78
.09	2.286	.19685	5.0	.30709	7.8	.41339	10.5	.72441	18.4
.09055	2.3	.2	5.08	.31	7.874	.41732	10.6	.75	19.050
.09375	2.3812	.20079	5.1	.31102	7.9	.42	10.668	.77559	19.7
.09449	2.4	.203125	5.1594	.3125	7.9375	.42126	10.7	.80	20.320
.09843	2.5	.20472	5.2	.31496	8.0	.421875	10.7156	.82677	21.0
.1	2.54	.20866	5.3	.31890	8.1	.42520	10.8	.85	21.590
.10236	2.6	.21	5.334	.32	8.128	.42913	10.9	.875	22.225
.10630	2.7	.21260	5.4	.32283	8.2	.43	10.922	.90	22.860
.109375	2.7781	.21654	5.5	.32677	8.3	.43307	11.0	.95	24.130
.11	2.794	.21875	5.5562	.328125	8.3344	.43701	11.1	1.00	25.4

THE PREFIX LETTERS OF THE OUTLINE DRAWING NUMBERS INDICATE THE FOLLOWING:

L — MULTIPLE Lead Type
MD — MOUNTED Type — DIAMOND Base
MM — MOUNTED Type — MISCELLANEOUS Configuration
MS — MOUNTED Type — SQUARE and RECTANGULAR Base
MT — MOUNTED Type — THREADED
OV — OVAL Case
R — ROUND Case
TO — JEDEC Type
u — MICROMINIATURE CASE
x — MISCELLANEOUS Configuration including Phototransistor
ZA — DRAWING REFERENCE INFORMATION

NOTES:

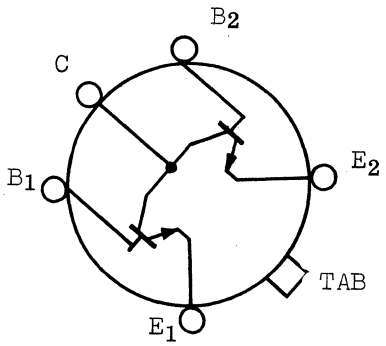
These outline drawings are intended as a guide for the user. They should not be used for construction purposes without first checking with the appropriate manufacturer.

These drawings are referenced in the Technical Sections of this D.A.T.A.BOOK in accordance with information supplied by the manufacturers.

The DO and TO drawings have been reproduced from JEDEC Publication No. 12E (May 1964) with the permission of the National Electrical Manufacturer's Association - Electrical Industries Associates. JEDEC designations are assigned only to outlines submitted by the JS-10 Committee on Mechanical Standardization. The procedure of assigning and announcing the JEDEC designation constitutes registration.

All drawings have circular symmetry unless indicated.

L1

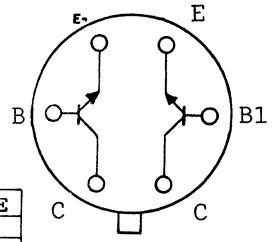


L1 - TO77 - DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

L1A - TO71 - DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

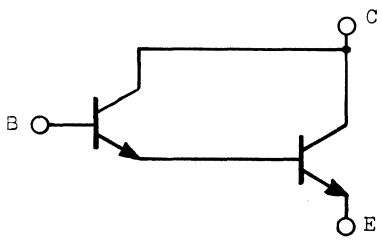
L2

REVISED FALL 1969



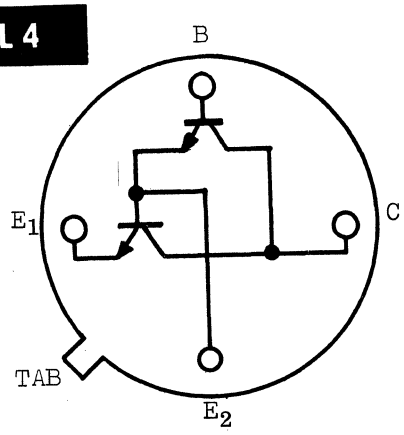
	E1	B1	C1	E2	B2	C2	OUTLINE
L2	3	2	1	5	6	7	R131
L2b	3	2	1	5	6	7	TO77
L2d	3	2	1	5	6	7	TO78
L2f	2	1	9	4	5	7	TO89
L2g	3	2	1	4	5	6	TO78
L2h	1	2	3	7	6	5	R102a
L2j	1	2	3	5	6	7	TO71
L2m	3	2	1	5	6	7	TO70
L2p	3	2	1	5	6	7	TO71
L2r	3	2	1	5	6	7	R136
L2s	3	2	1	5	6	7	R137
L2t	3	2	1	5	6	7	R131c
L2u	1	3	2	4	6	5	R138
L2v	3	2	1	5	6	6	R131d
L2w	3	2	1	5	6	7	R131b
L2y	3	2	1	5	6	7	RO131f
L2z	1	2	3	4	5	6	R138

L3



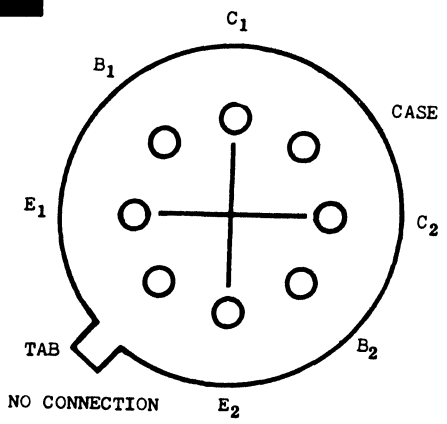
	E	B	C	POLARITY	OUTLINE
L3	1	2	3	NPN	TO18
L3a	1	2	3	NPN	TO5
L3b	1	2	3	PNP	TO18
L3d	1	2	3	NPN	TO53
L3e	1	2	3	NPN	TO98
L3f	2	1	3	NPN	TO98

L4



L4	TO72
L4a	TO46

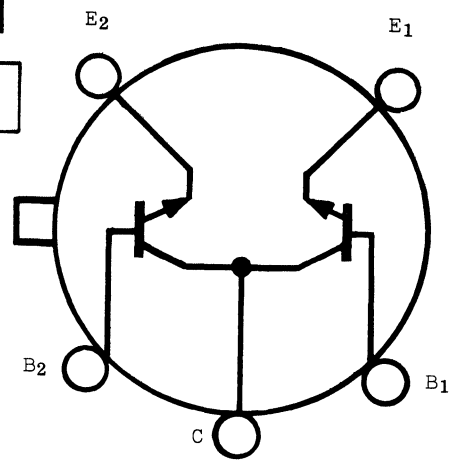
L 5



TO5 DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

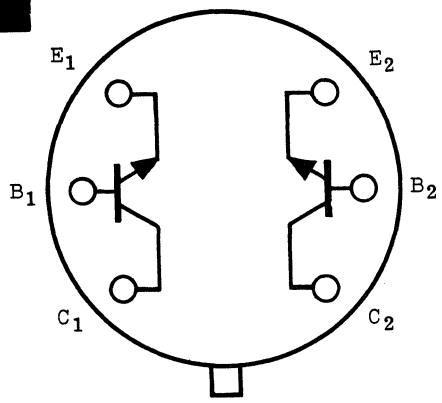
L 6

REVISED FALL 1969



OUTLINE DRAWINGS
L6 TO5 dimensions except for number of leads
L6a R144

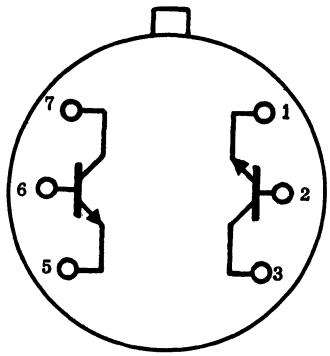
L 8



INTERNAL CONFIGURATION

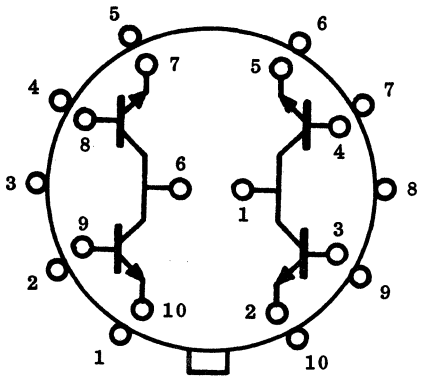
	OUTLINE DRAWING
L8	TO33
L8a	R52

L 10



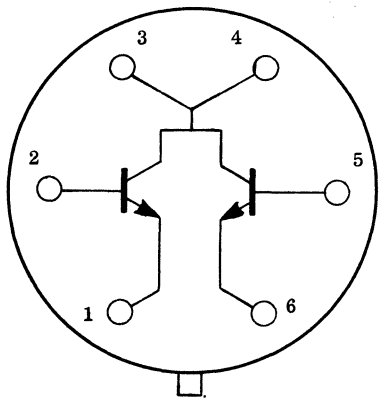
TO5 DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

L 11



TO5 DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

L 16



TO5 DIMENSIONS EXCEPT FOR
INTERNAL CONFIGURATIONS

L 17

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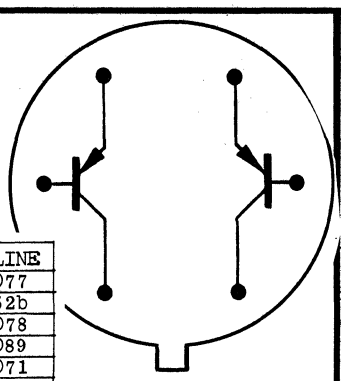
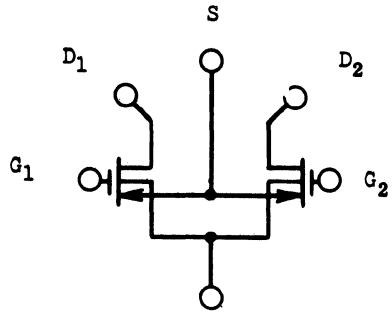


	E1	B1	C1	E2	B2	C2	OUTLINE
L17a	3	2	1	5	6	7	TO77
L17b	3	2	1	5	6	7	R52b
L17c	3	2	1	5	6	7	TO78
L17d	2	1	9	4	5	7	TO89
L17e	1	2	3	5	6	7	TO71
L17f	3	2	1	5	6	7	R52
L17g	3	2	1	5	6	7	R131b
L17h	3	2	1	4	5	6	R131a
L17j	3	2	1	5	6	7	R131
L17k	3	2	1	5	6	7	R131c
L17m	1	3	2	4	6	5	R138
L17s	2	1	9	4	5	7	X22
L17t	3	2	1	5	6	7	R137
L17u	1	6	7	2	5	3	TO71
L17v	3	2	1	4	5	6	R52a
L17w	1	2	3	4	5	6	R138

L 18

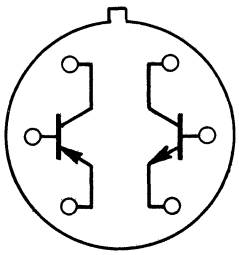


SUBSTRATE

	D1	G1	D2	G2	S	SUBSTRATE	OUTLINE
L18	1	2	7	6	8	4	TO77
L18a	1	3	7	5	8	4	TO76
L18b	1	2	7	6	8	4	TO78
L18c	1	3	7	5	8	4	TO99

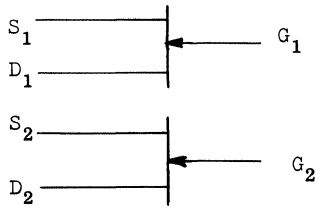
L 19

REVISED FALL 1969



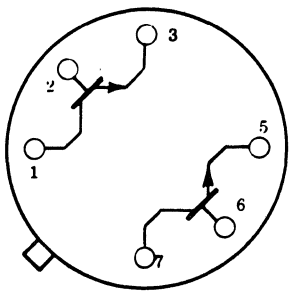
	NPN			PNP			
	E1	B1	C1	E2	B2	C2	OUTLINE
L19	3	2	1	5	6	7	TO77
L19a	3	2	1	5	6	7	TO78
L19b	1	3	2	4	6	5	R138
L19c	2	1	9	4	5	7	TO89
L19d	1	2	3	4	5	6	R138

L 21



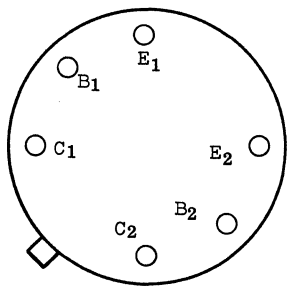
	S1	D1	G1	S2	D2	G2	OUTLINE
L21	1	2	3	5	6	7	TO71
L21a	1	2	3	5	6	7	TO76
L21b	1	2	3	4	5	6	R120
L21c	2	1	9	4	5	7	TO89
L21d	1	2	3	4	5	6	TO71

L 22



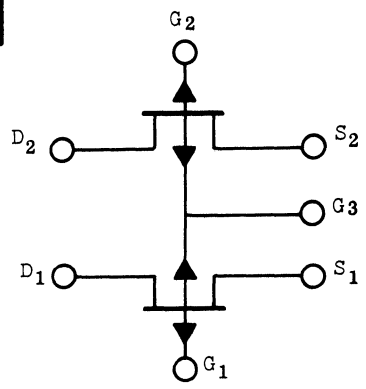
TO18 Dimensions except for Lead configurations

L 23



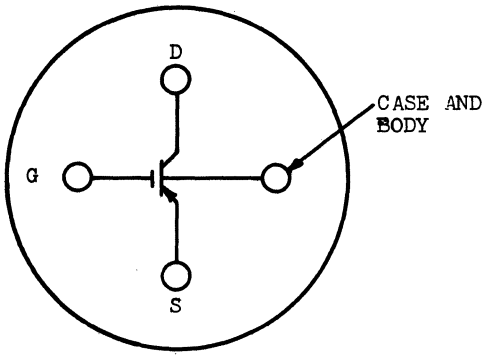
R33 Dimensions except for internal configurations

L 24



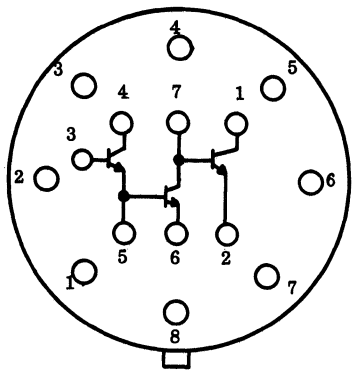
	S_1	D_1	G_1	S_2	D_2	G_2	G_3	CASE	OUTLINE
L24	1	2	3	7	6	5	4	8	TO76
L24a	1	2	3	7	6	5	4	8	TO78
L24b	1	2	3	7	6	5	4	8	R131a

L 25



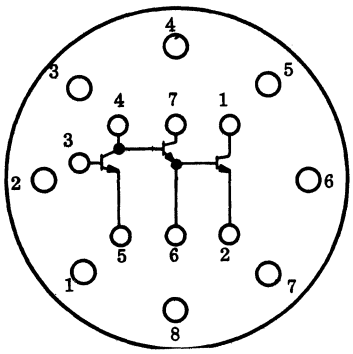
TO18 DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

L 26



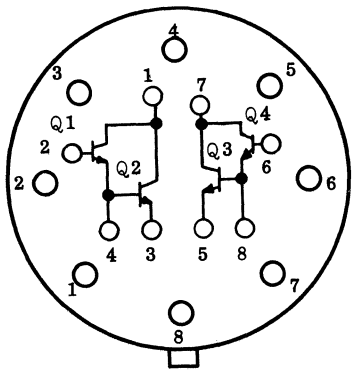
TO77 - DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

L 27



TO77 - DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

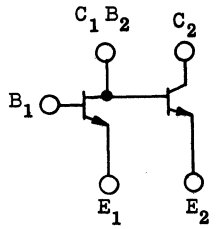
L 28



TO77 - DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

L 29

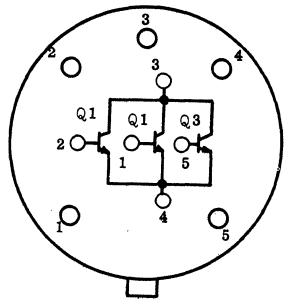
REVISED FALL 1968



	E1	B1	C1B2	E2	C2	OUTLINE
L29	3	2	1	4	6	TO77
L29a	1&6	5	7	2	3	TO71

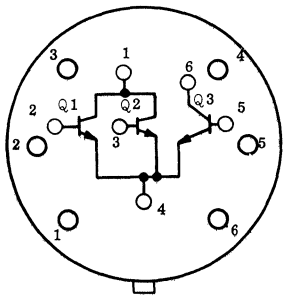
TO5 DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

L 30



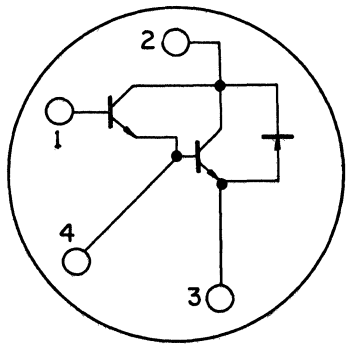
TO77 DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

L 31



TO77 DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

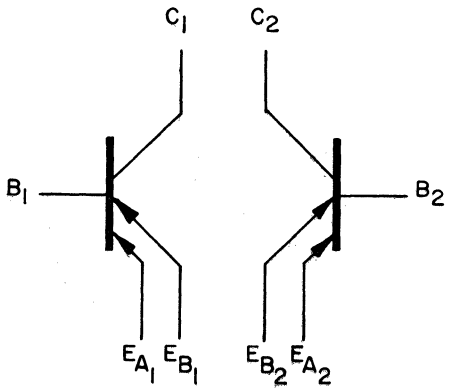
L 35



X19 DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

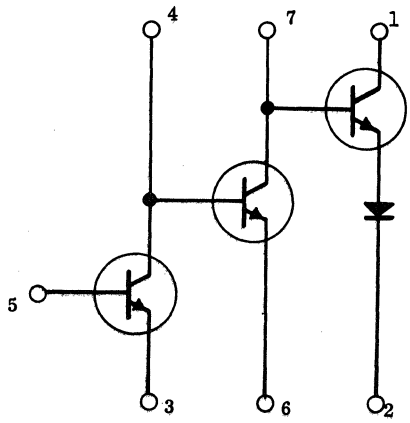
	B1	C	E	B2	OUTLINE
L35	1	2	3	4	X19
L35a	3	4	1	2	TO33

L 38



	EA1	EB1	B1	C1	EA2	EB2	B2	C2	POL.	OUTLINE
L38	6	7	5	4	9	10	1	2	PNP	TO90
L38a	6	7	5	4	9	10	1	2	NPN	X66

L42

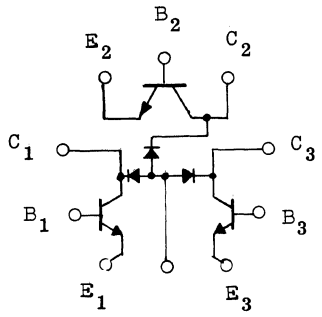


TO77 OUTLINE

L 43

REVISED FALL 1969

TO5 DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

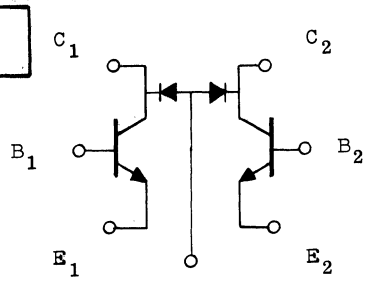


	E1	B1	C1	E2	B2	C2	E3	B3	C3	
L43	1	2	3	4	5	6	7	8	9	TO5
L43a	1	2	3	4	5	6	7	8	9	TO78
L43b	2	3	4	14	13	12	5	6	7	X91

L 44

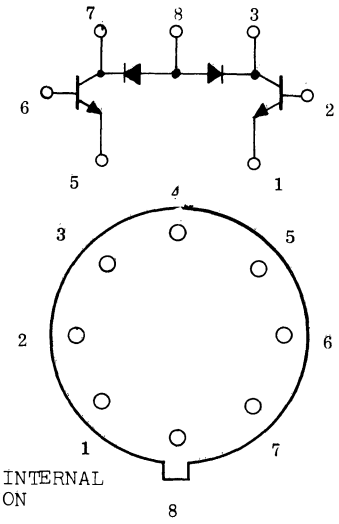
REVISED FALL 1969

TO5 DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION



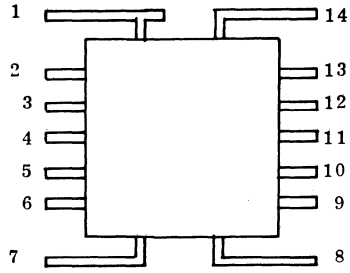
	E1	B1	C1	E2	B2	C2	OUTLINE
L44	1	2	3	7	6	5	TO5
L44a	1	2	3	7	6	5	TO78
L44b	2	3	4	14	13	12	X91

L 45



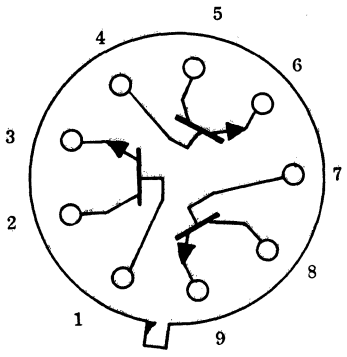
TO5 DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

L 49



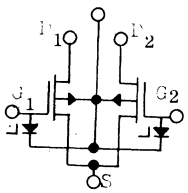
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	OUTLINE
L49a	NC	G1	G2	G3	G4	NC	S4	D4	S3	D3	S2	D2	S1	D1	TO84
L49b	NC	NC	G1	G2	G3	G4	NC	NC	S4	S3	S2	S1	D	NC	TO84

L 50



R129 OUTLINE AND DIMENSIONS

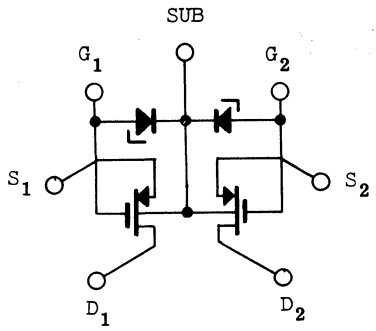
L51



	G1	D1	B	G2	D2	S	OUTLINE
L51	3	1	4	5	7	8	TO78
L51a	3	1	4	5	7	8	TO76
L51b	3	1	4	5	7	8	TO99

L 53

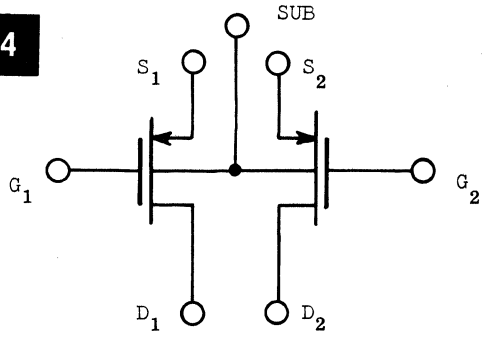
REVISED FALL 1968



TO77 DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

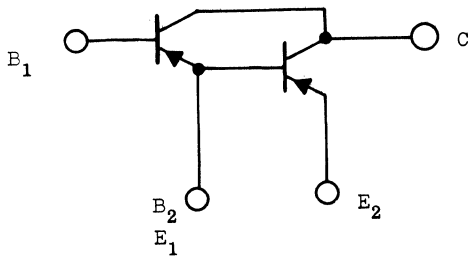
OUTLINE	D_1	S_1	G_1	G_2	S_2	D_2	SUBSTRATE
TO77	1	2	3	5	6	7	4 8

L 54



	OUTLINE	S_1	D_1	G_1	S_2	D_2	G_2	SUB
L54	TO77	2	1	3	6	7	5	4
L54a	TO5	1	3	2	7	5	6	8

L 55



B_1	B_2 & E_1	E_2	C	OUTLINE
2	4	1	3	TO12

L 56

	E1	B1	C1	C2	B2	E2	C3	B3	E3	C4	B4	E4	POLARITY	OUTLINE
L56	3	2	1	7	6	5	8	9	10	14	13	12	PNP	TO86
L56a	2	1	13	12	3	4	5	10	11	6	8	9	NPN	TO85
L56b	2	1	13	12	3	4	5	10	11	6	8	9	PNP	TO85
L56c	3	2	1	5	6	7	10	9	8	12	13	14	NPN	TO86
L56d	1	2	3	5	6	7	10	9	8	12	13	14	PNP	TO84
L56e	1	2	3	5	6	7	10	9	8	12	13	14	PNP	X84
L56f	1	2	3	5	6	7	10	9	8	12	13	14	NPN	TO84
L56g	1	2	3	5	6	7	10	9	8	12	13	14	NPN	X84
L56h	4	3	2	6	5	4	9	10	4	13	12	4	NPN	TO84
L56j	4	3	2	6	5	4	9	10	4	13	12	4	NPN	X84

L 57

G_1	G_2	G_3	G_4	G_5	G_6	S	SUB	D_1	D_2	D_3	D_4	D_5	D_6	POLARITY
1	2	3	4	5	6	7	8	14	13	12	11	10	9	P

TO86 DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATIONS.

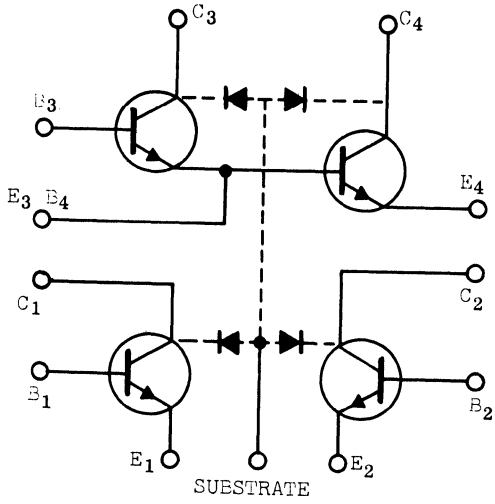
L 58

	S1	D1	G1	S2	D2	G2	POLARITY	OUTLINE
L58	1	2	3	4	5	6	N	TO71
L58a	1	2	3	4	5	6		R52b

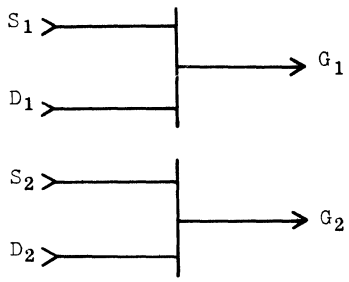
L 59

	NPN						PNP						
	E1	B1	C1	E2	B2	C2	E3	B3	C3	E4	B4	C4	OUTLINE
L59	2	1	13	4	3	12	11	10	5	9	8	6	TO85

L 60

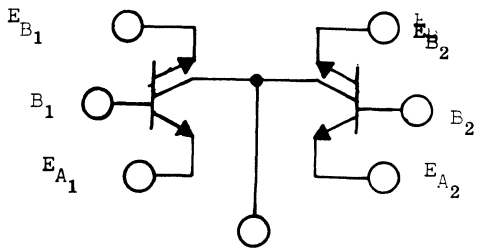


L 61



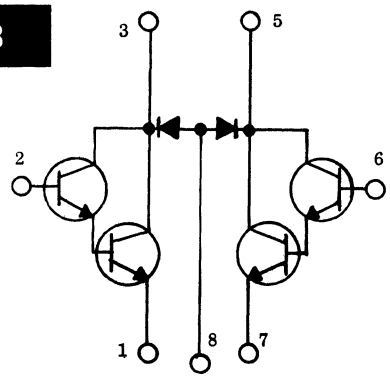
	S_1	D_1	G_1	S_2	D_2	G_2	OUTLINE
L61	1	2	3	4	5	6	R120
L61a	1	2	3	5	6	7	TO71
L61b	1	2	3	4	5	6	R120
L61c	2	3	1	5	4	6	R52

L 62



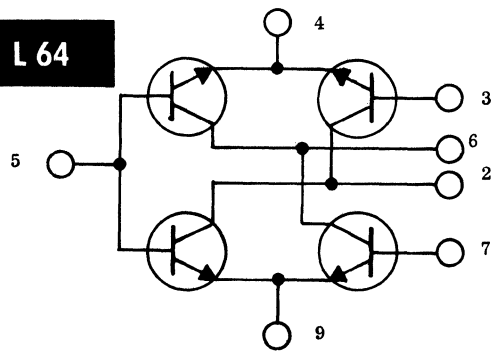
	EA1	B1	EB1	EB2	B2	EA2	C	POL	OUTLINE
L62	1	2	3	5	6	7	8	NPN	TO79

L 63



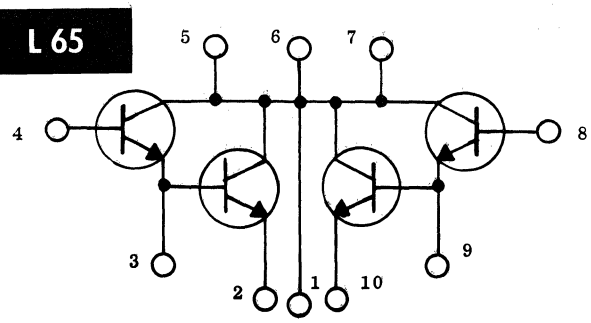
TO77 DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

L 64



TO74 DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

L 65

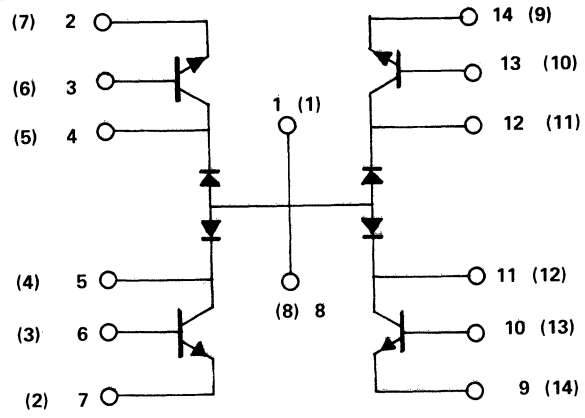


TO96 DIMENSIONS EXCEPT FOR INTERNAL CONFIGURATION

L 66

	LEAD CONFIGURATION								OUTLINE
	1	2	3	4	5	6	7	8	
	C	B	E	OMIT	E	B	C	OMIT	
L66	NPN				PNP				TO99
L66a	NPN				NPN				TO99
L66b	PNP				PNP				TO99

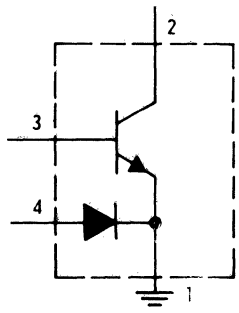
L67



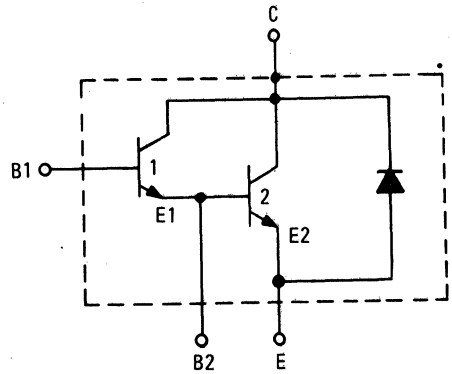
1 = TO86

(1) = X91

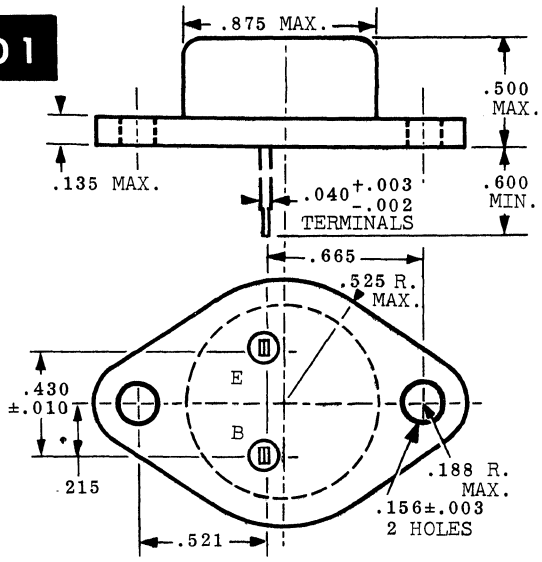
L68



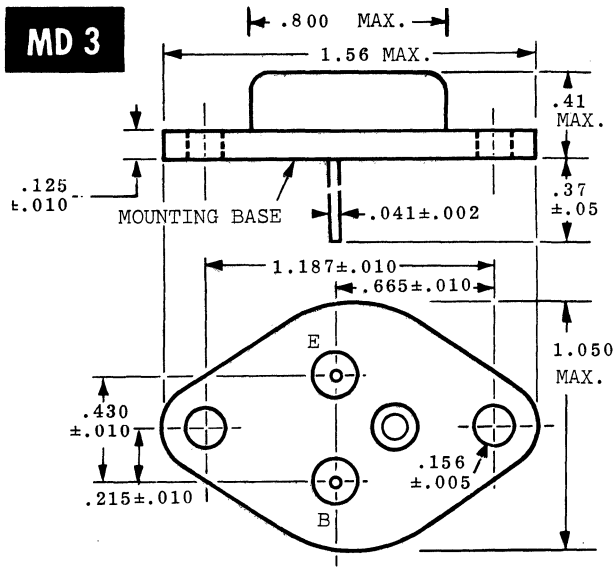
L69



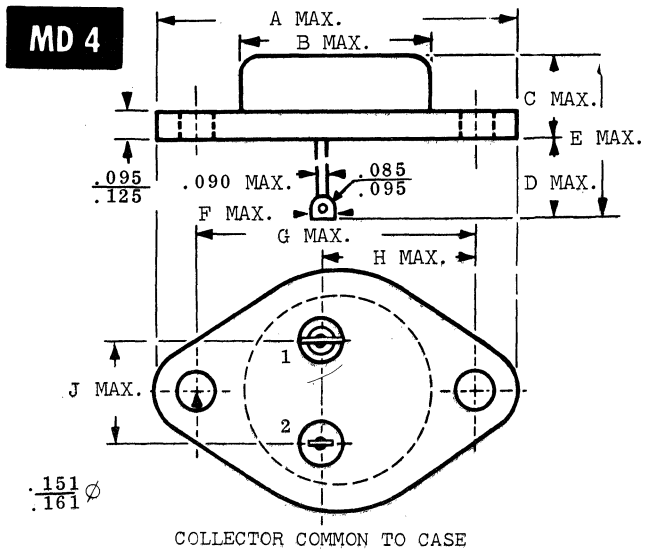
MD 1



MD 3

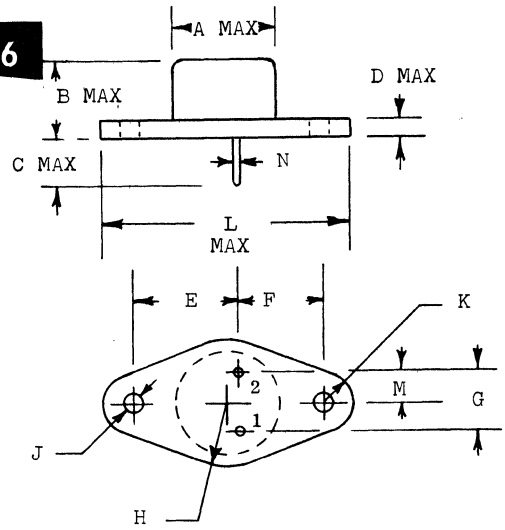


MD 4



	A	B	C	D	E	F	G	H	J
MD4	1.531	.783	.380	.665	1.032	.145	1.192	.670	.440
MD4a		.773	.338	.376		.198	1.191	.672	.440

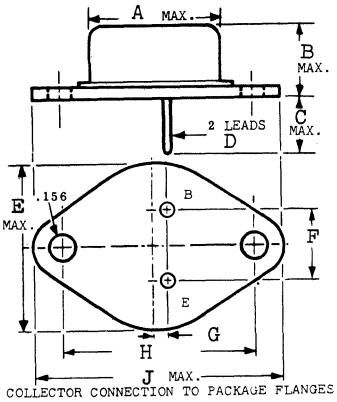
MD 6



	A	B	C	D	E	F	G	H	J	K	L	M	N
MD6	.768	.400	.480	.130	.665	.521	.430		.166		1.53	.215	
MD6a	.875	.562	.312	.135	.665	.521	.440	.525	.156	.188	1.55		.038 .043
MD6b	.560	.315	.394	.079	.536	.990	.236		.161		1.23		.043
MD6c	.830	.300	.050	.135	.665	.522	.420		.151		1.55	.205 MIN.	.038
MD6d	.830	.300	.420	.135	.675	.522	.440		.151		1.55	.255 MAX.	.052
MD6e	.500	.340	.360	.100	.580	.380	.200	.350 MAX.	.147	.145 MAX.	1.25	.100	.31
MD6f	.875	.450	.312 MIN.	.135	.675		.440	.525	.161	.188	1.57	1.225	.052
MD6g	.575	.385	.433		.515	.389	.236		.165		1.24	.118	.043
MD6h	.590	.390	.340	.130	.520	.390	.240	.375	.170	.165	1.24	.120	.040

MD 9

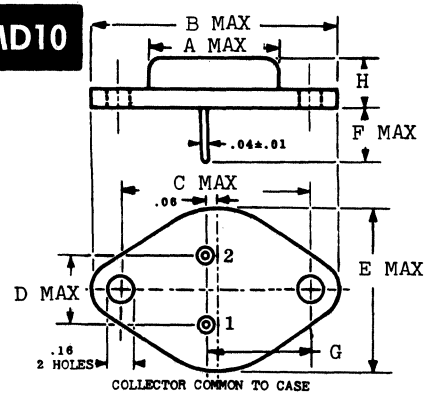
REVISED FALL 1969



COLLECTOR CONNECTION TO PACKAGE FLANGES

	A	B	C	D	E	F	G	H	J
MD9	.650	.500	.480	.040	1.005	.430	.072	1.184	1.545
MD9a	.811	.354	.452	.039	1.04	.429		1.18	1.5

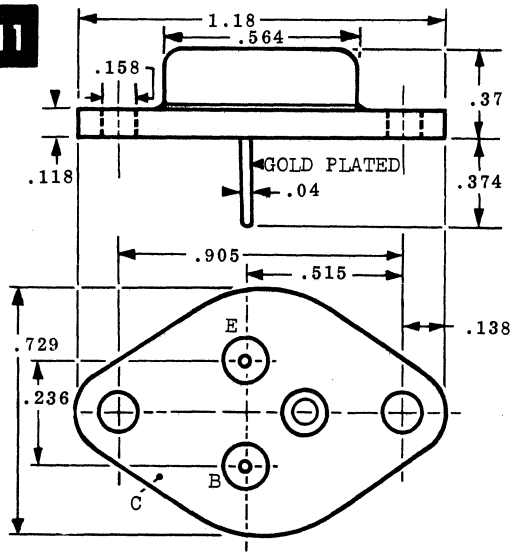
MD10



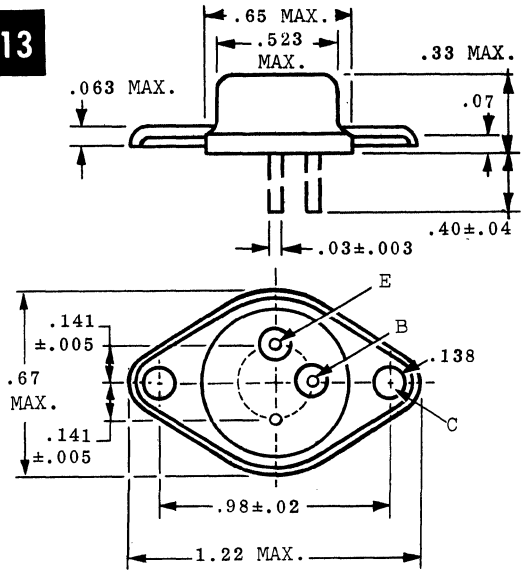
COLLECTOR COMMON TO CASE

	A	B	C	D	E	F	G	H
MD10	.570	1.22	.949	.322	.785	.355		.295
MD10a	.590	1.22	.949	.322	.785	.355		.295
MD10b	.590	1.30	.949	.322	.785	.355		.295
MD10c	.551	1.22	.913	.244	.743	.413	.523	
MD10d	.551	1.22	.913	.244	.743	.413	.523	.263
MD10e	.500	1.25	.962	.210	.700	.360	.580	.340
MD10f	.492	1.26	.969	.201	.709	.393	.579	.315

MD 11

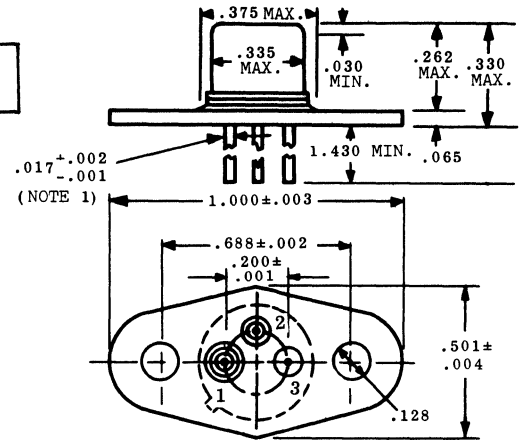


MD 13



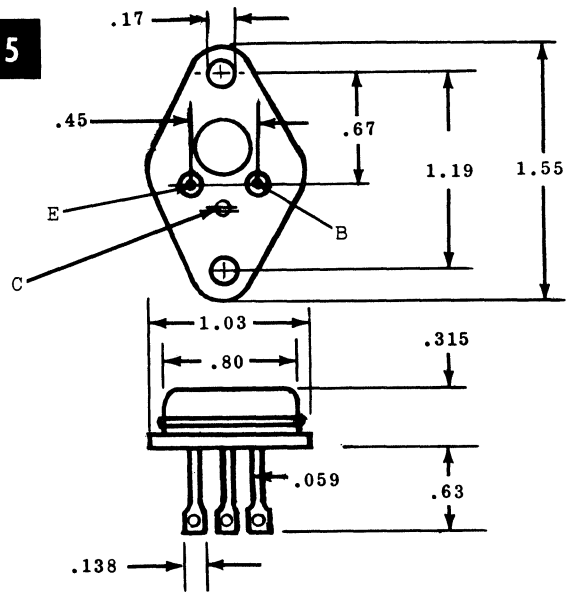
MD 14

REVISED FALL 1969



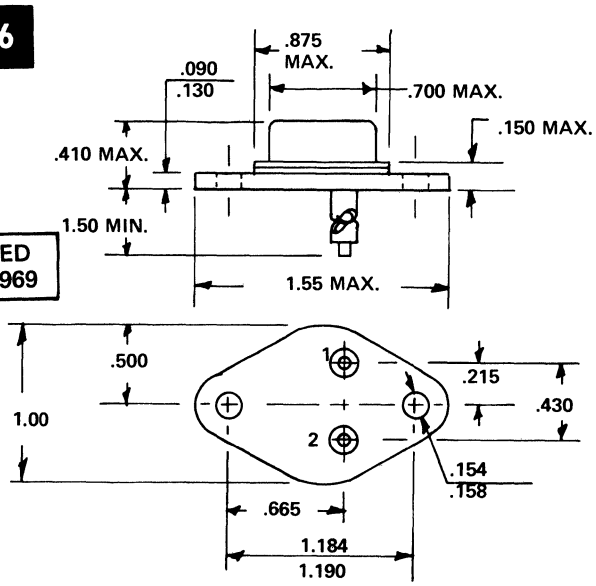
NOTE 1: Lead diameter is controlled in the zone between .050 and .250 from the base seat. Between .250 and end of lead a max. of .021 is held.

MD 15

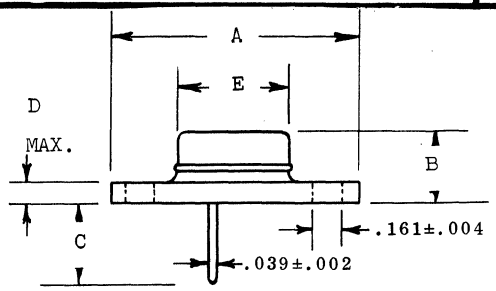


MD 16

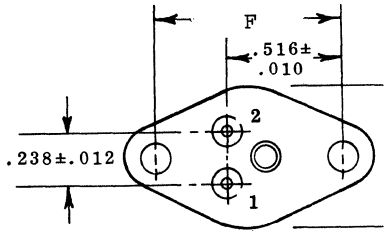
REVISED FALL 1969



MD 17



	A	B	C
MD17	1.18	.350	.350 MIN.
MD17a		.350	.382 .429
MD17b	1.23	.315	.394
MD17c	1.23 MAX.	.350 MAX.	.354 .413
MD17d	1.56	.275 MAX.	.400 .500

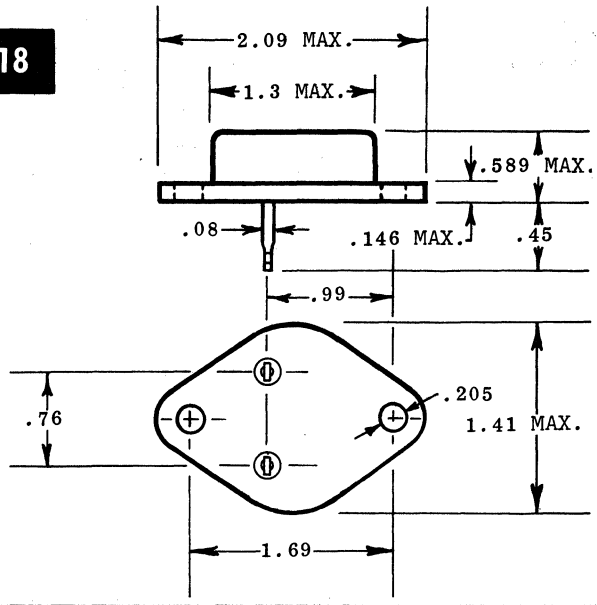


	D	E	F
MD17	.071	.562	.900 .910
MD17a	.106	.562	.900 .910
MD17b	.079	.562	.900 .910
MD17c	.106	.574 MAX.	.897 .913
MD17d	.150	.900 MAX.	1.18 1.20

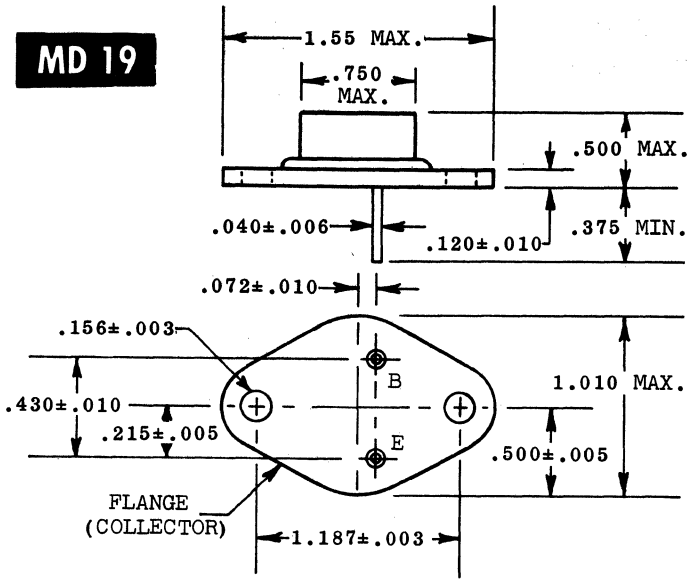
15. OUTLINE DRAWINGS

IN ORDER OF CASE NUMBER

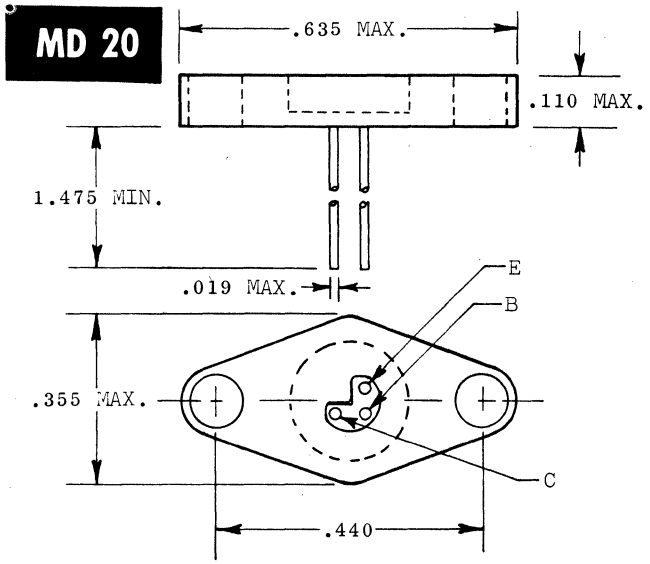
MD 18



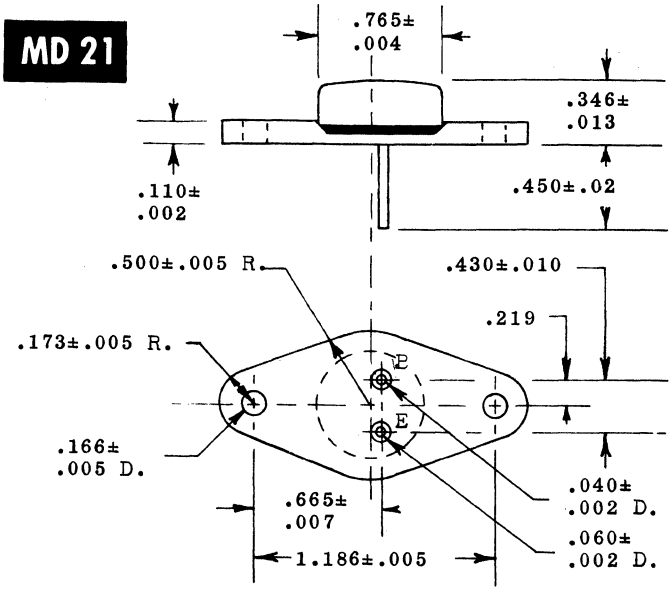
MD 19



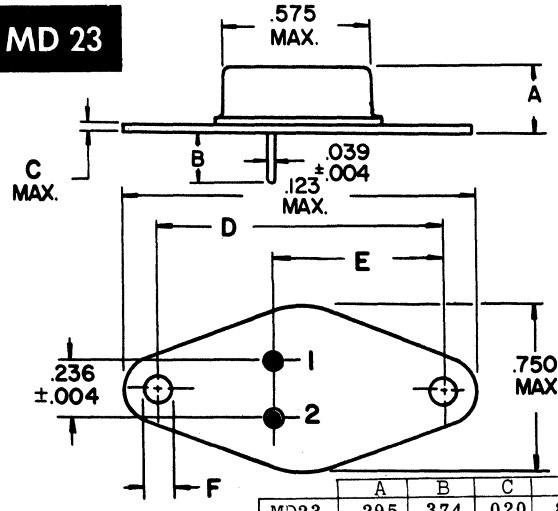
MD 20



MD 21

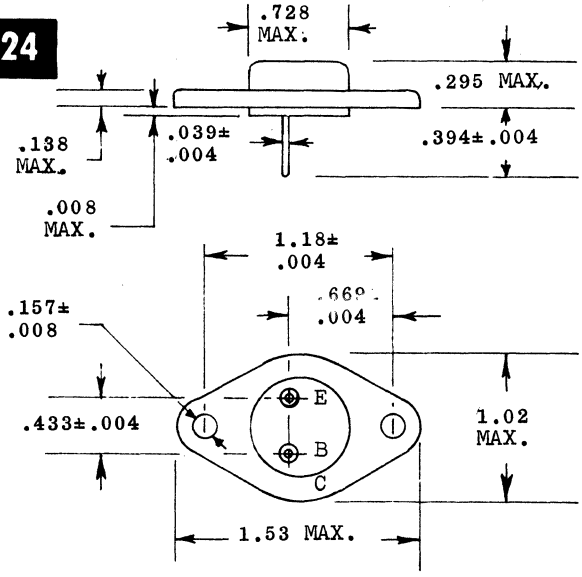


MD 23



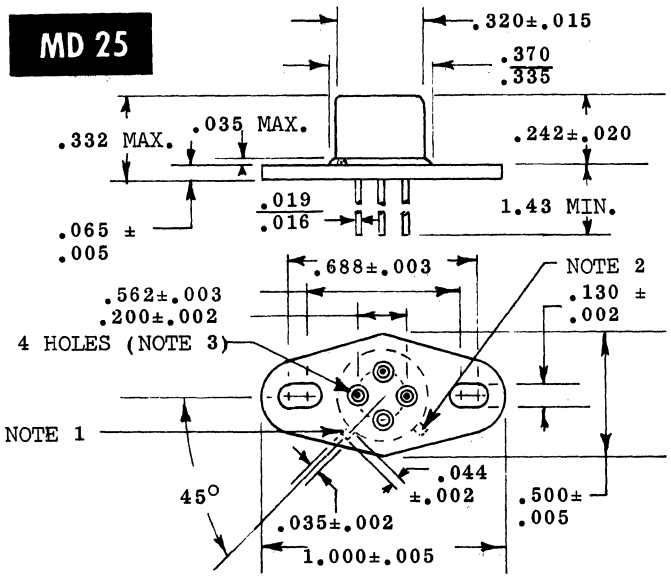
	A	B	C	D	E	F
MD23	.295	.374 .376	.020	.898 .904	.512 .520	.159 .164
MD23a	.386	.433	.020	.898 .904	.512 .520	.159 .164
MD23b	.390	.340	.130	.910		.170

MD 24



ALL DIMENSIONS IN INCHES

MD 25



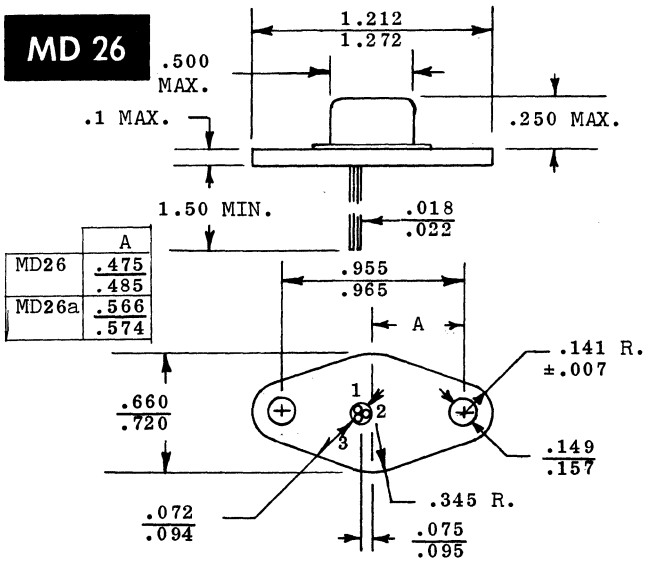
NOTES FOR MD25

NOTE 1: Index tab shown for 40255 or 40256 for lead orientation corresponding to that for MD-14 Outline. For lead identification, refer to terminal diagram.

NOTE 2: Index tab shown for 40255 or 40256 for lead orientation corresponding to that for TO-37 Outline.

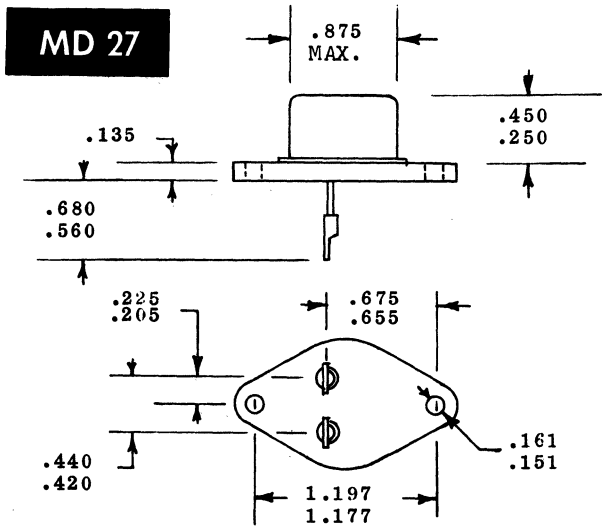
NOTE 3: .070 MIN., .074 MAX. Dia. Countersunk 90 degrees or Counterbored .125 Dia. x .025 Deep.

MD 26



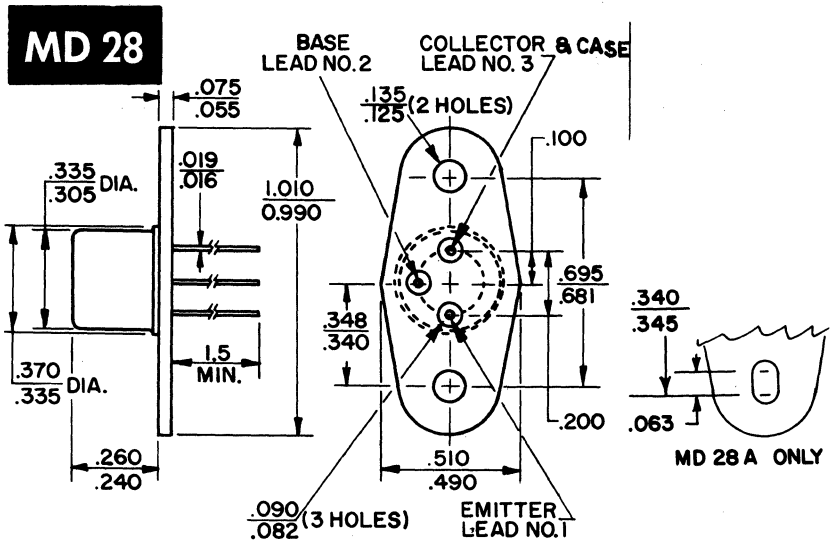
	A
MD26	.475 .485
MD26a	.566 .574

MD 27



COLLECTOR CONNECTED TO CASE

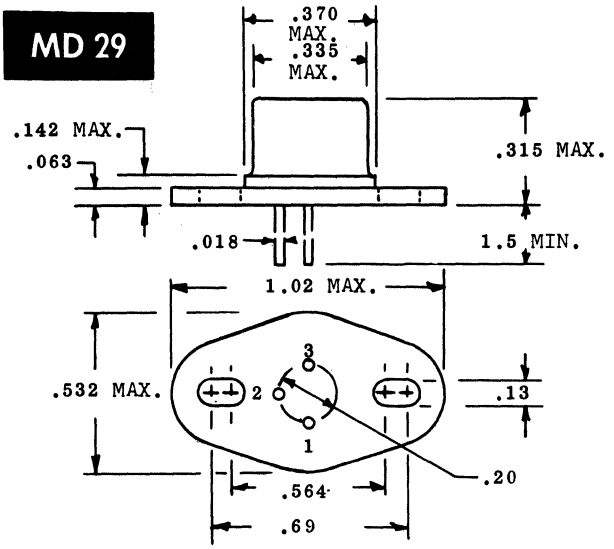
MD 28



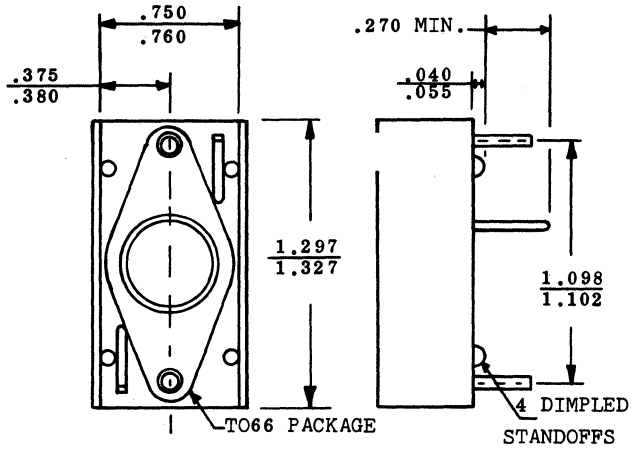
15. OUTLINE DRAWINGS

IN ORDER OF CASE NUMBER

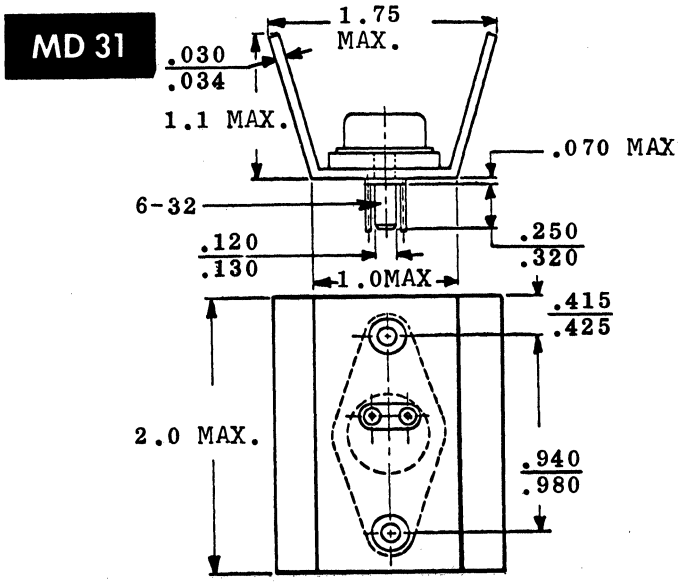
MD 29

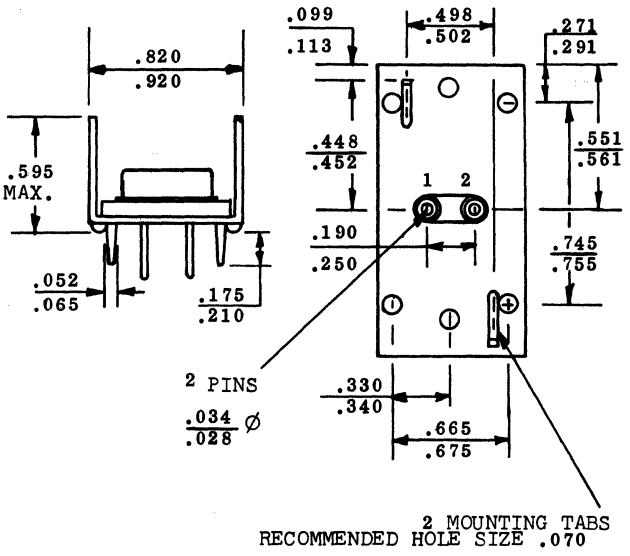


MD 30

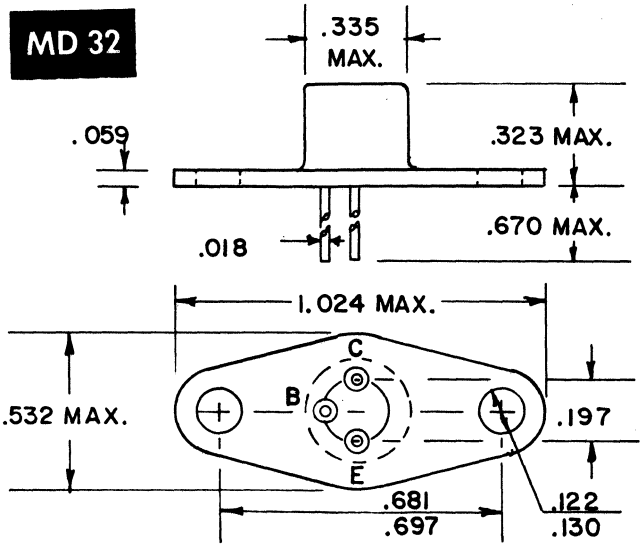


MD 31

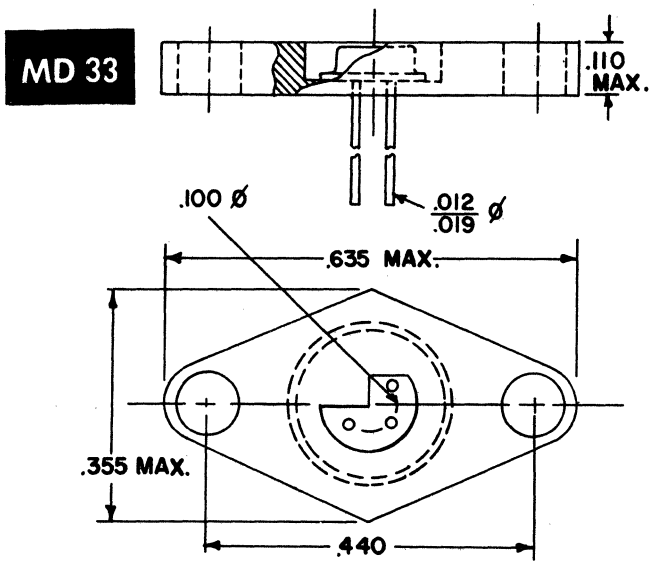




MD 32

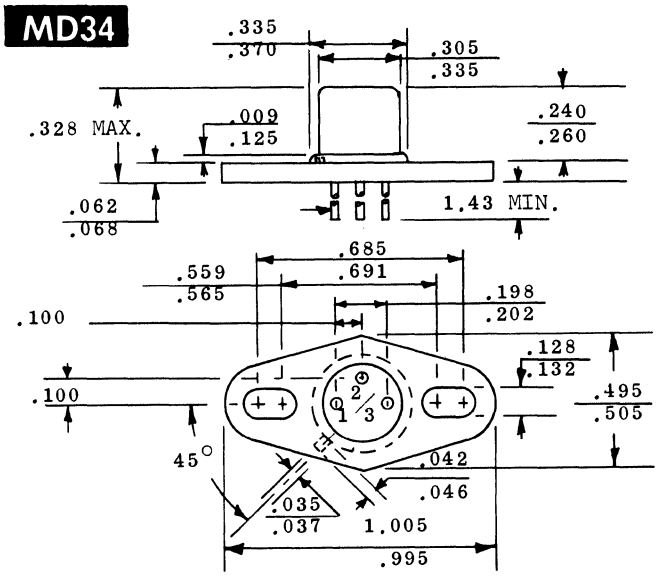


MD 33



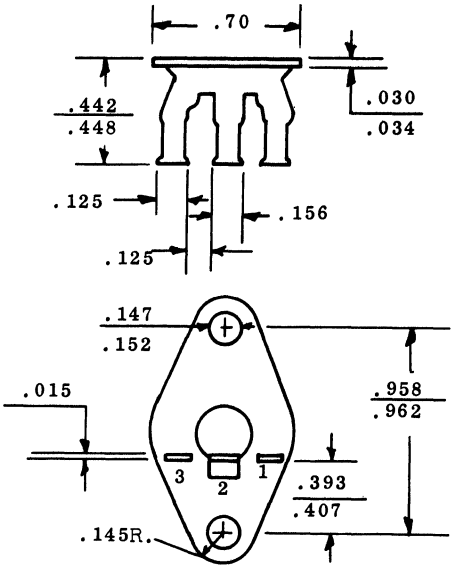
ALL DIMENSIONS IN INCHES

MD34

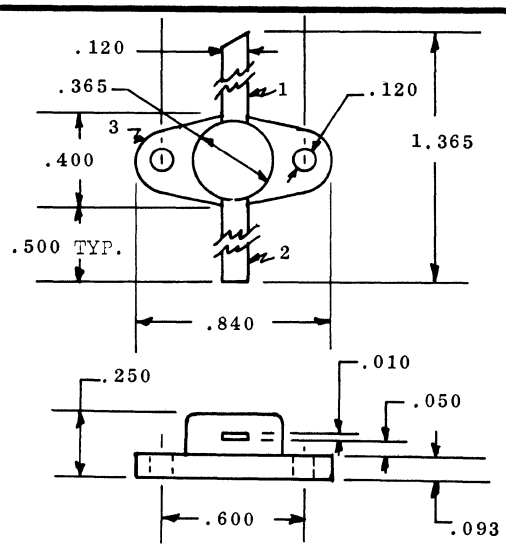


MD 35

REVISED SPRING 1969

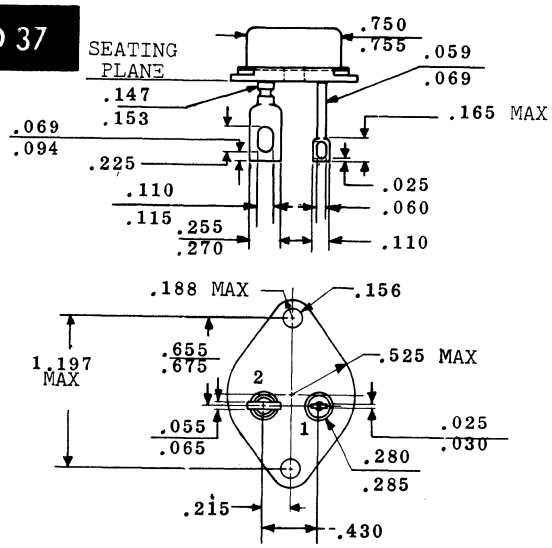


MD 36

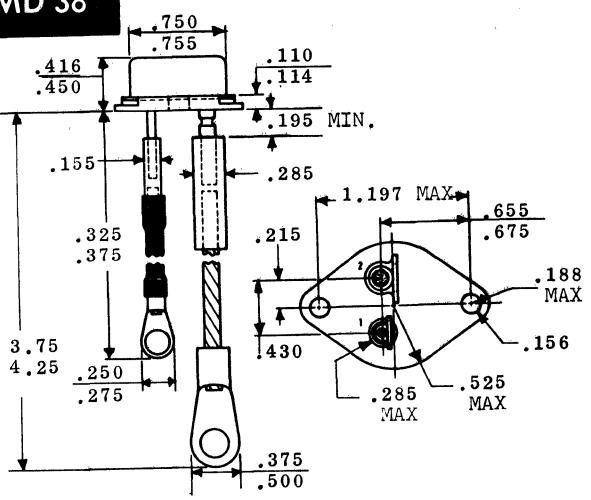


OUTLINE	E1	B1	C1	E2	B2	C2	B3	C3	E3B4	E4	C4	SUB-STRATE
RO140	7	6	8	4	3	5	9	11	2	1	12	10

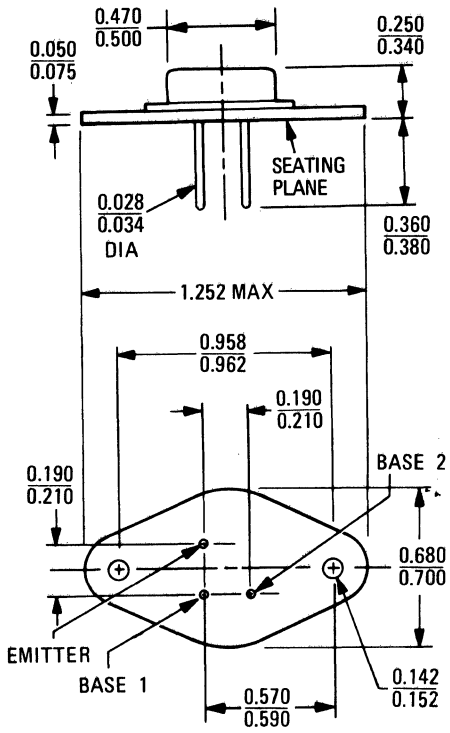
MD 37



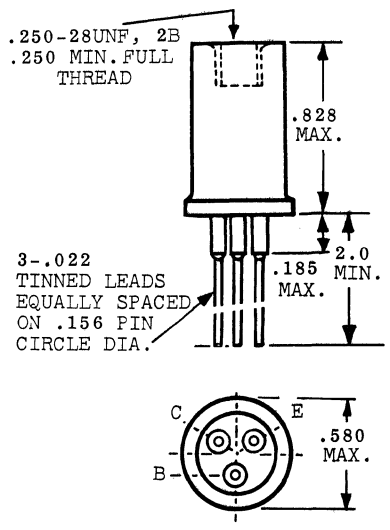
MD 38



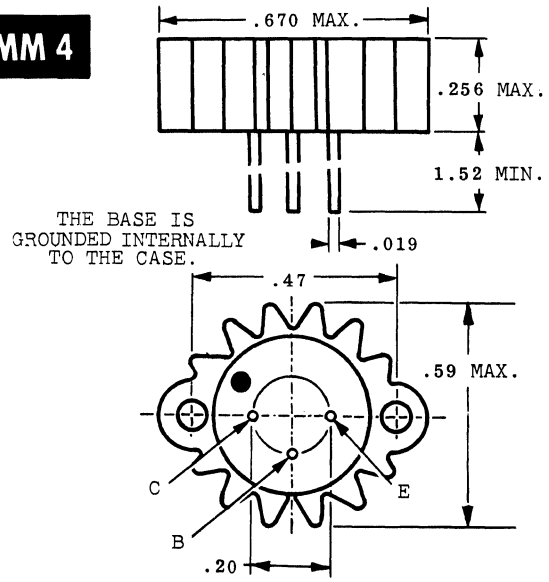
MD39



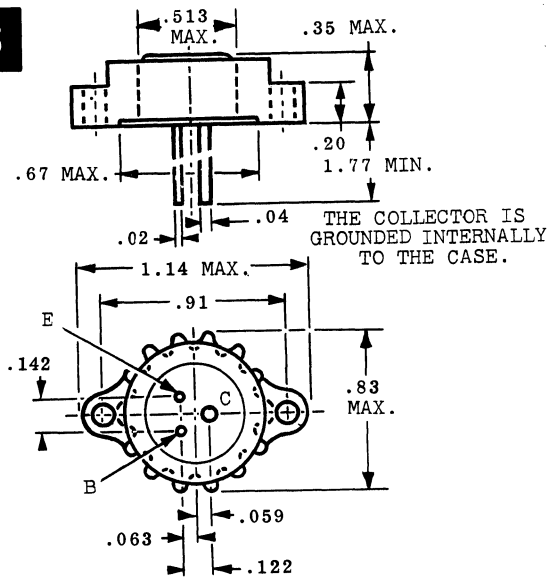
MM 3



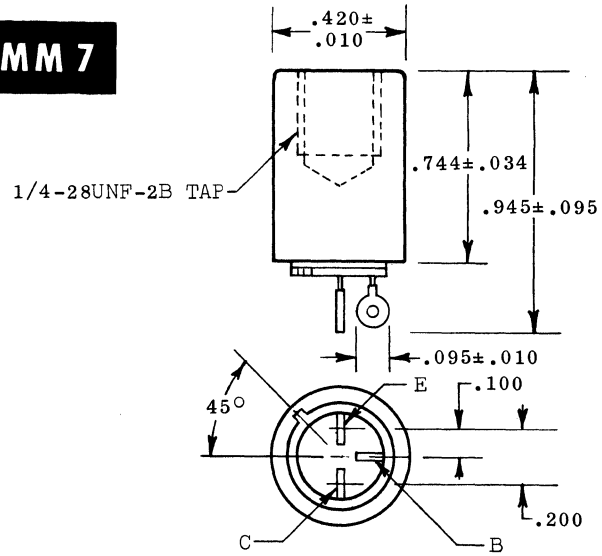
MM 4



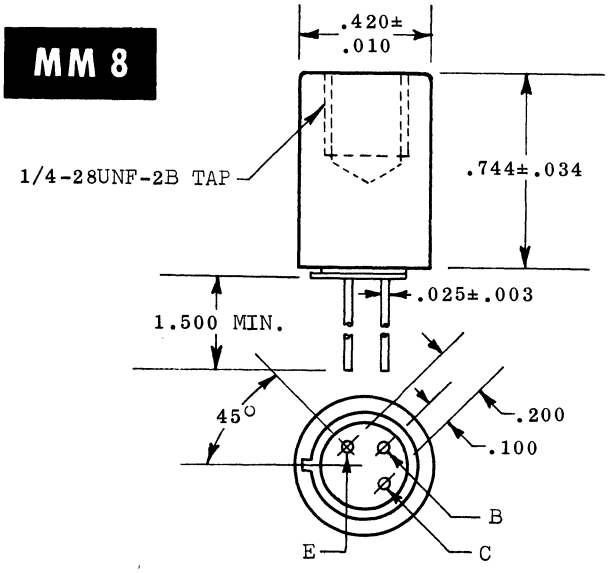
MM 5



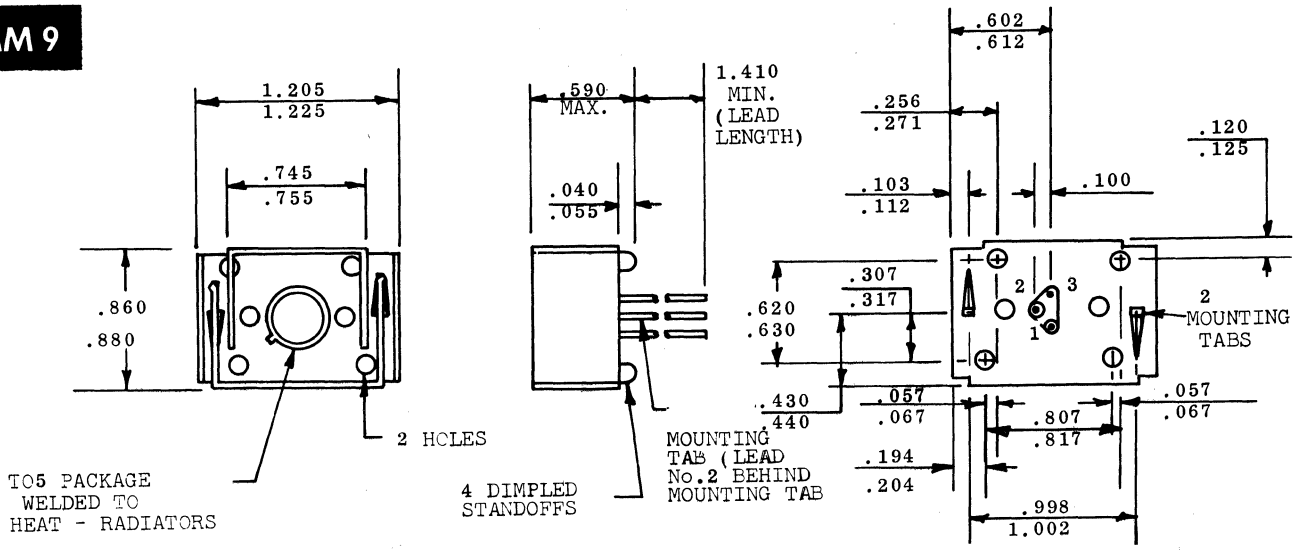
MM 7



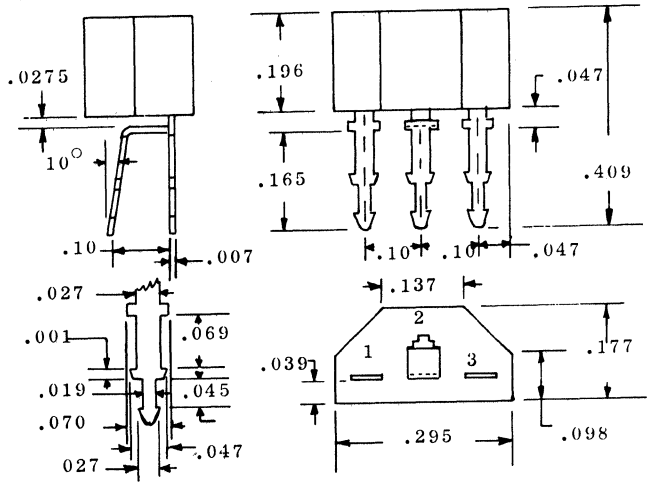
MM 8



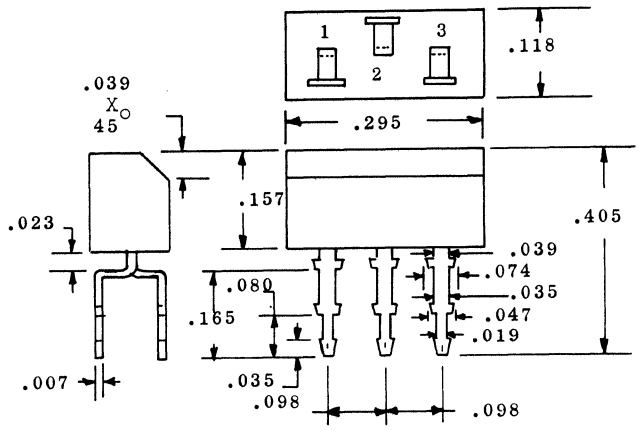
MM 9



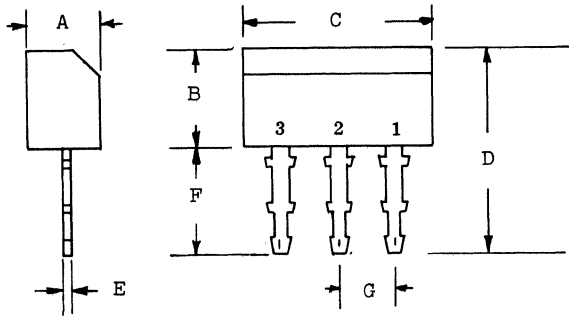
MM10



MM11

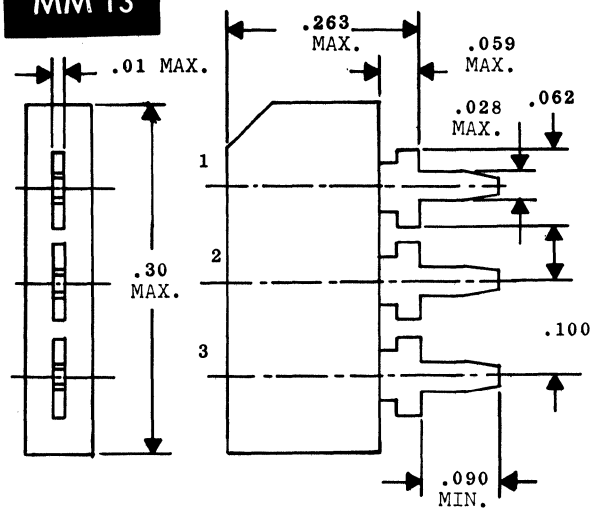


MM12

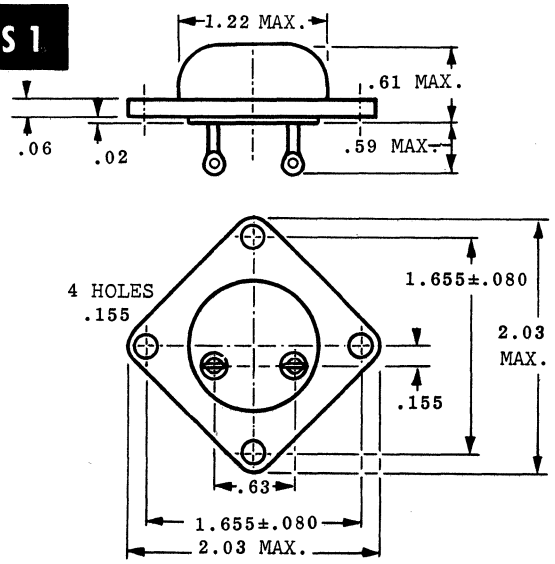


	A	B	C	D	E	F	G
MM12	.118	.157	.295	.433	.007		.098
MM12a	.130	.200	.170		.018 DIA.	.500	.050
MM12b	.137	.236	.216		.018	.492	.050
MM12c	.870	.157	.177		.018	.492	.050

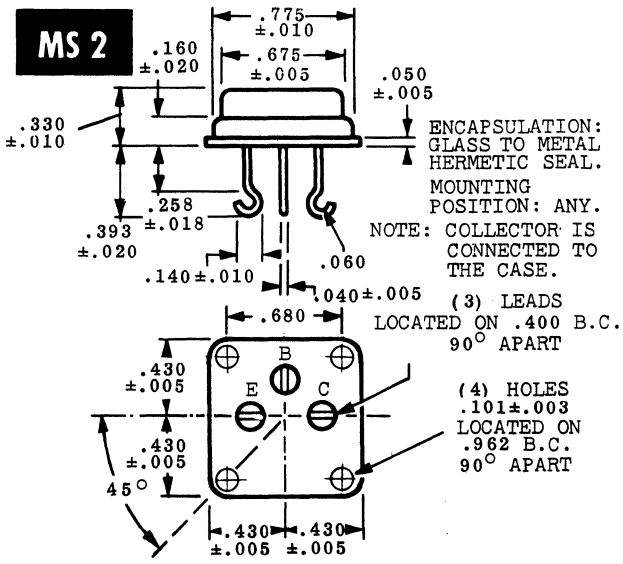
MM 13



MS 1



MS 2



ENCAPSULATION: GLASS TO METAL HERMETIC SEAL.

MOUNTING POSITION: ANY.

NOTE: COLLECTOR IS CONNECTED TO THE CASE.

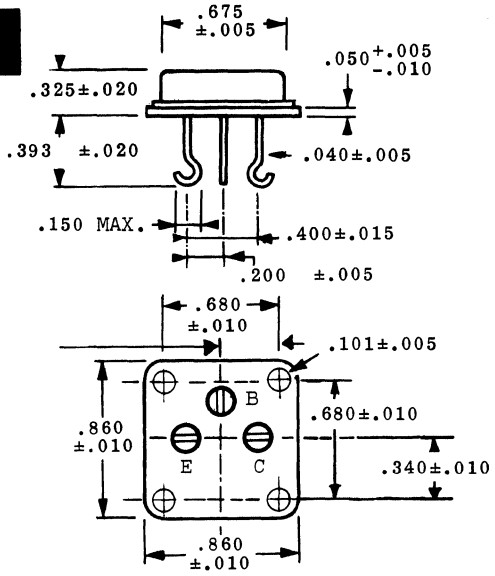
(3) LEADS LOCATED ON .400 B.C. 90° APART

(4) HOLES .101±.003 LOCATED ON .962 B.C. 90° APART

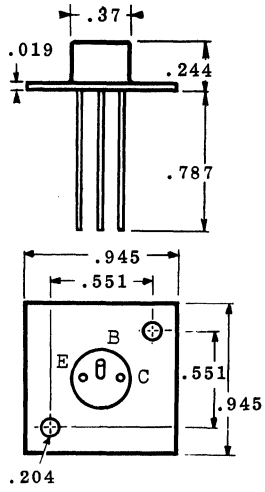
15. OUTLINE DRAWINGS

IN ORDER OF CASE NUMBER

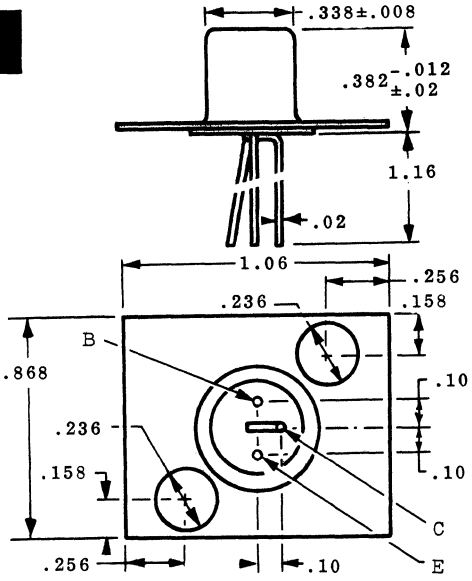
MS 3



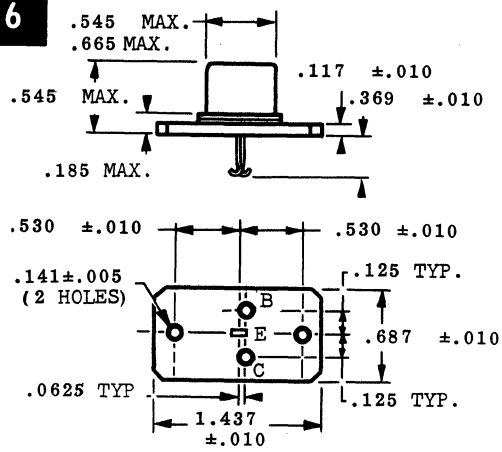
MS 4



MS 5



MS 6



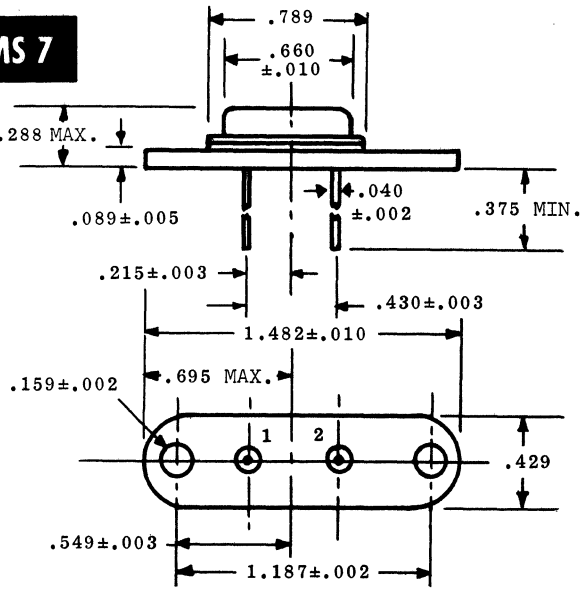
.0625 x 45° CHAMFER (TYP.)

EMITTER COMMON TO CASE

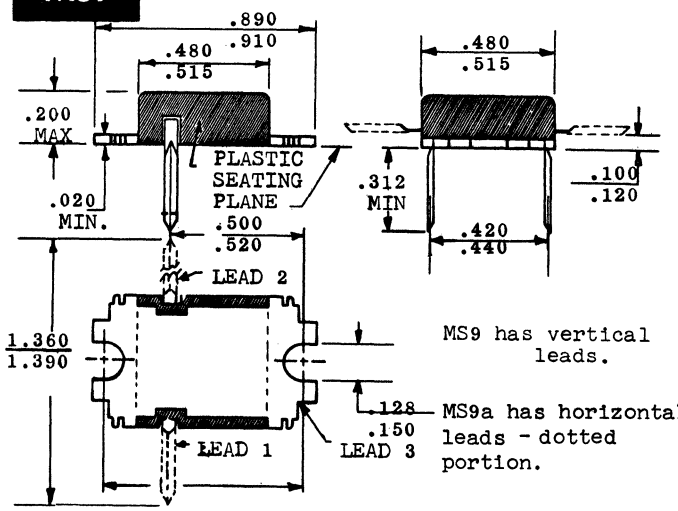
MS 8

SAME AS TO53
COLLECTOR ISOLATED FROM CASE

MS 7



MS9

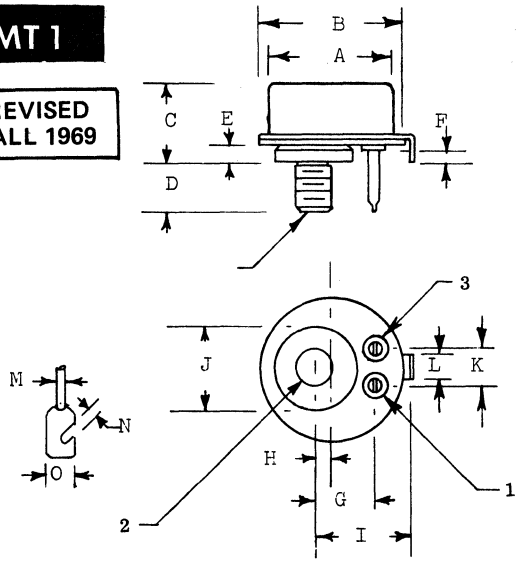


MS9 has vertical leads.

MS9a has horizontal leads - dotted portion.

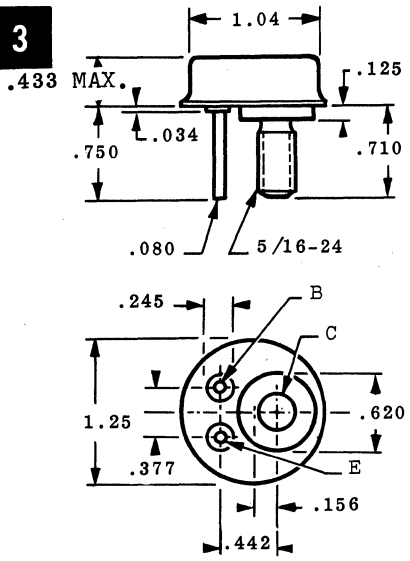
MT 1

REVISED FALL 1969

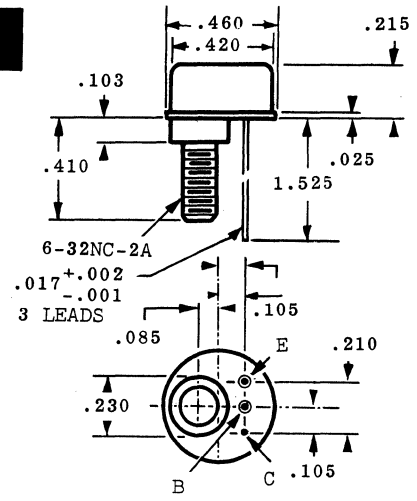


	MT1	MT1a	MT1b
A	1.046	1.046	1.130 MAX.
B	1.281	1.281	1.280-1.240
C	.546 MAX.	.546 MAX.	.560 MAX.
D	.562	.562	.580-.550
E	.125	.125	.140 MAX.
F	.020	.020	.190-.130
G	.500	.500	.520-.480
H	.156	.156	.170-.140
I	.828	.828	.850-.810
J	.750	.750	.770-.730
K	.375	.375	.360-.400
L	.156	.156	.170-.140
M	.060±.005	.060±.005	.055-.083
N	.055 hole	.062±.008	.055-.075
O		.120±.010	.110-.166

MT 3



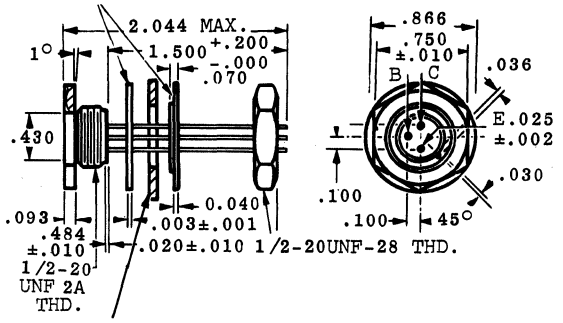
MT 5



COLLECTOR COMMON TO CASE
DIMENSIONS ARE MAXIMUM
UNLESS OTHERWISE STATED

MT 6

ELECTRICAL ISOLATION WASHERS OPTIONAL
.890±.010 x .508 ID SHOLDER DIA. .558

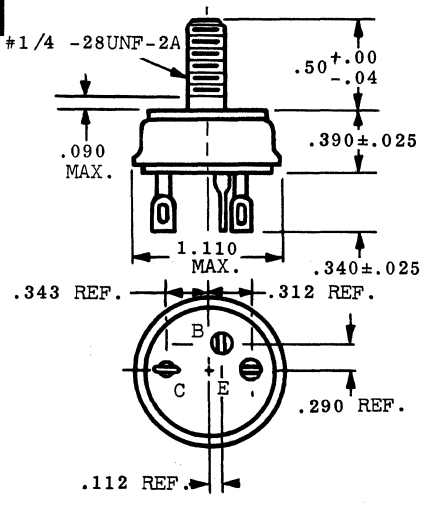


WHEN ASSEMBLY IS MOUNTED DIRECT TO CHASSIS THE CHASSIS HOLE SHALL BE 1/2 DIAMETER.

IF ISOLATION WASHERS ARE USED THE CHASSIS HOLE SHALL BE 9/16 DIAMETER.

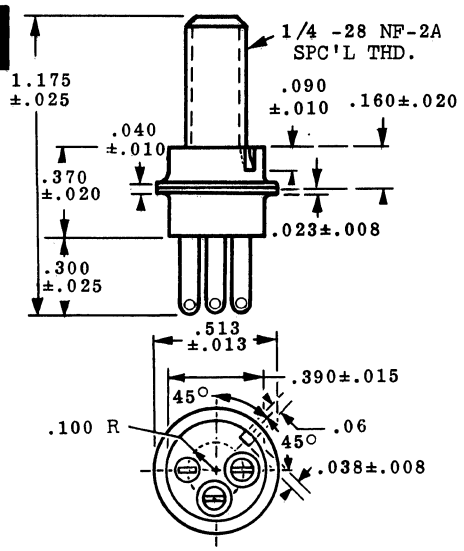
UNLESS OTHERWISE NOTED
ALL DIMENSIONS WILL BE ±.005

MT 7

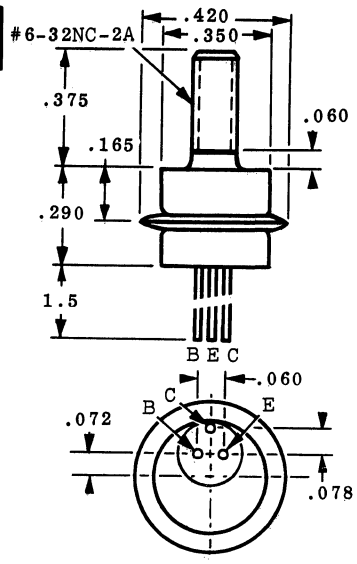


15. OUTLINE DRAWINGS

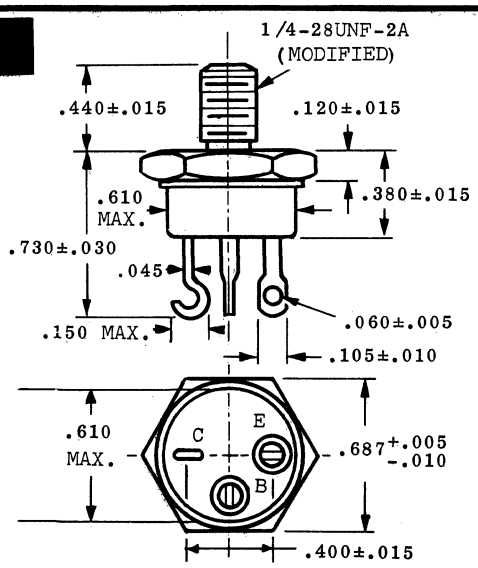
MT 8



MT 9

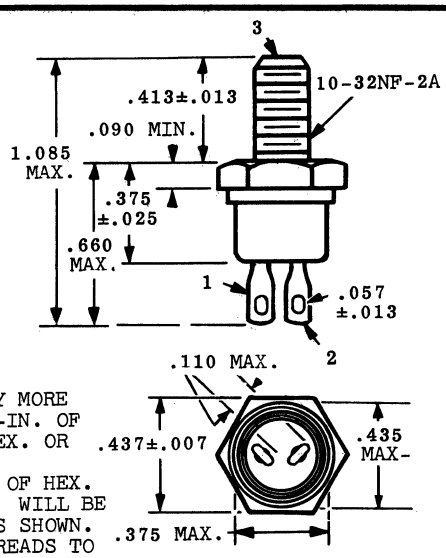


MT 10



MT10 COLLECTOR COMMON TO CASE
MT10a COLLECTOR ISOLATED FROM CASE

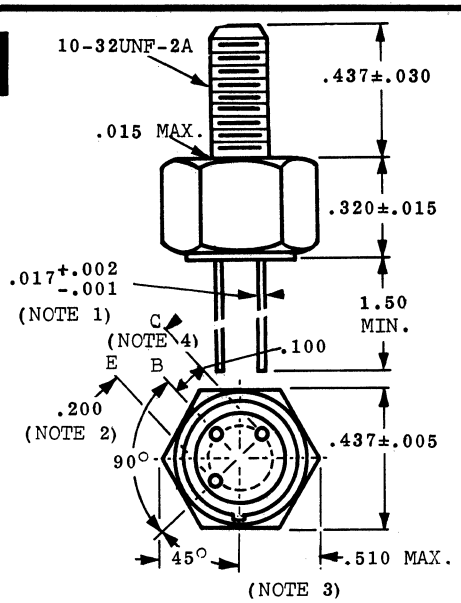
MT 11



NOTES:

1 DO NOT APPLY MORE THAN 15 LB.-IN. OF TORQUE TO HEX. OR TO NUT.
2 BOTTOM EDGE OF HEX. (LOWER SIDE) WILL BE CHAMFERED AS SHOWN.
3 COMPLETE THREADS TO EXTEND TO WITHIN 2 1/2 THREADS OF HEX.

MT 13



NOTES: →

NOTES FOR MT-13:

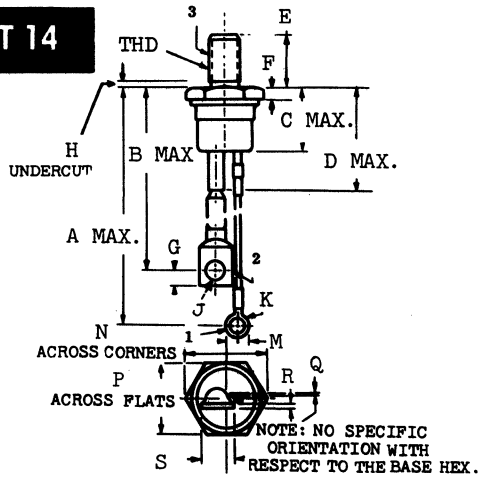
1. The specified lead diameter applies in a zone between .050 and .250 from the base seat. Between .250 and 1.5 a maximum of .021 diameter is held. Outside of these zones the lead diameter is not controlled.

2. Leads having maximum diameter (.019) measured in gaging plane .054+.001 -.000 below base seat of the device shall be within .007 of their true location relative to the maximum diameter (.510) circumscribing the hex.

3. The position of the leads in relation to the hex flats is not controlled.

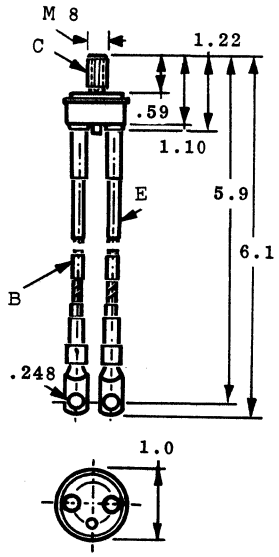
4. The collector is electrically connected to the case.

MT 14

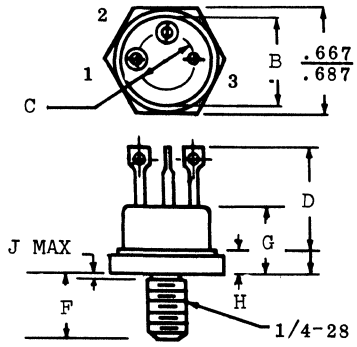


	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S	THD
MT14	7.12	6.37	1.12	1.75	.812	.187	.375	.093 MAX.	.265	.140	.250	1.21	1.06	.031	.093	.562	1/2-20UNF 2A
MT14a	8.25	8.25	1.75	2.25	1.06	.230 MIN.	.340	.080	.260 MIN.	.145	.300		1.25	.032	.070	.755 MAX.	3/4-16UNF 2A

MT 15

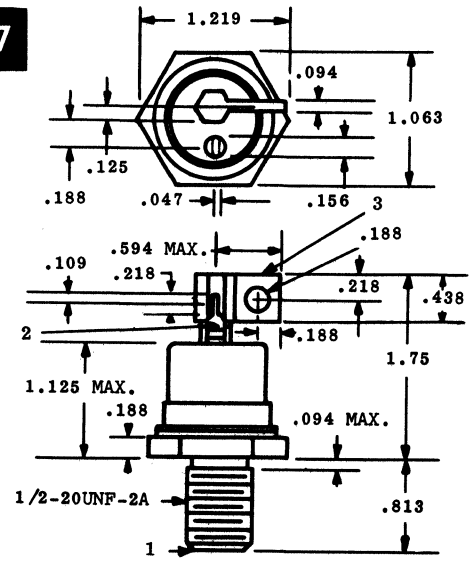


MT 16

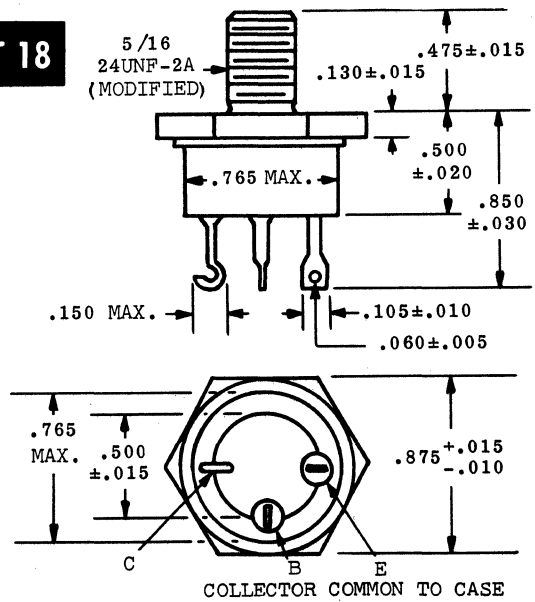


	B	C	D	F	G	H	J
MT16	.580 .600	.345 .365	.710 .880	.410 .450	.370 .430	.090 .170	.060
MT16a	.570 .610	.340 .415	.640 .875	.422 .455	.325 .460	.090 .150	.090

MT 17

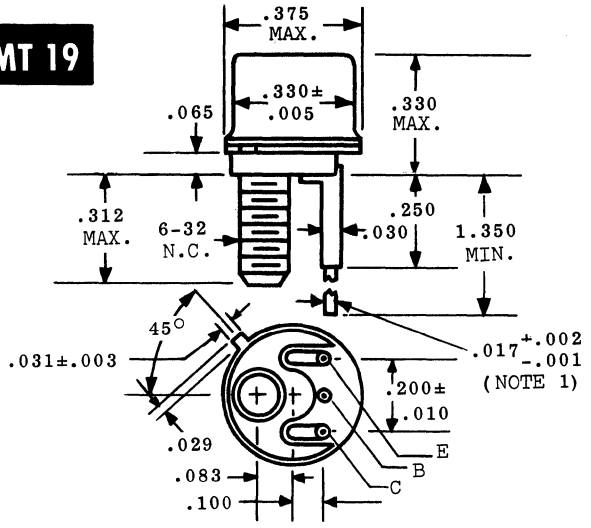


MT 18



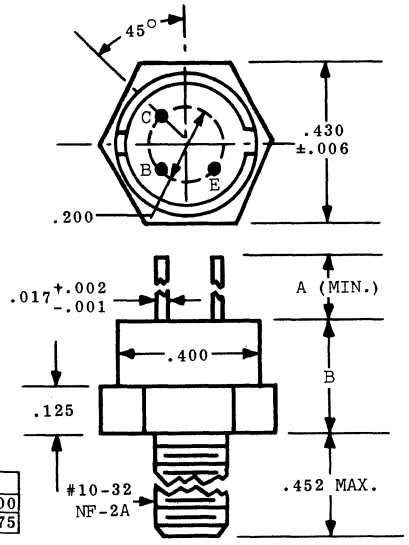
15. OUTLINE DRAWINGS

MT 19



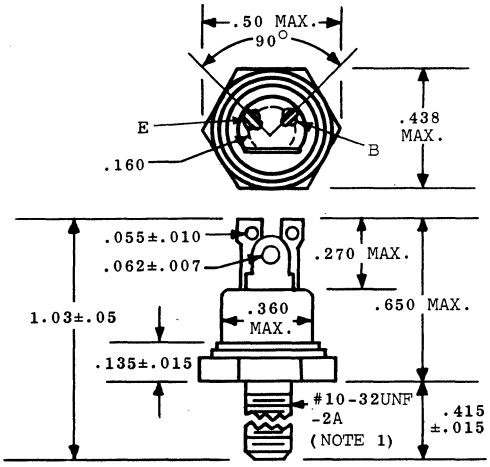
NOTE 1: All leads are protected from grounding on mounting panel up to 1/4 in. thick. Between .250 and end of lead a max. of .021 is held.

MT 20



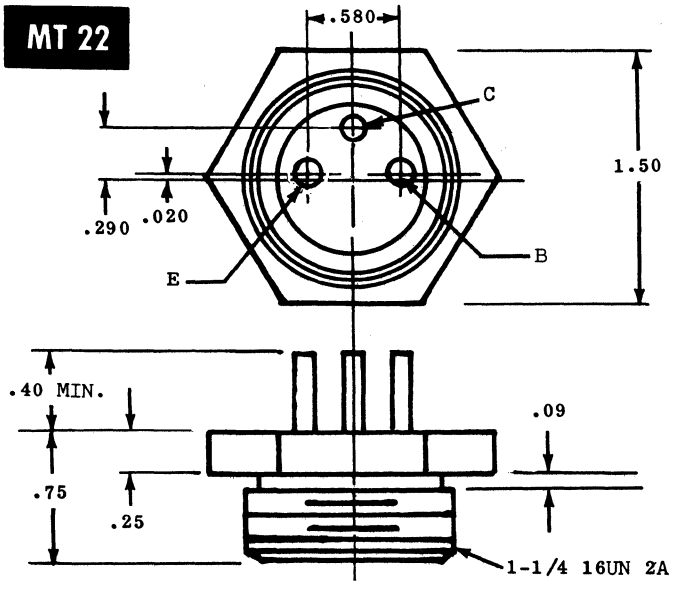
	A	B
MT20	1.500	.300
MT20a	1.435	.375

MT 21

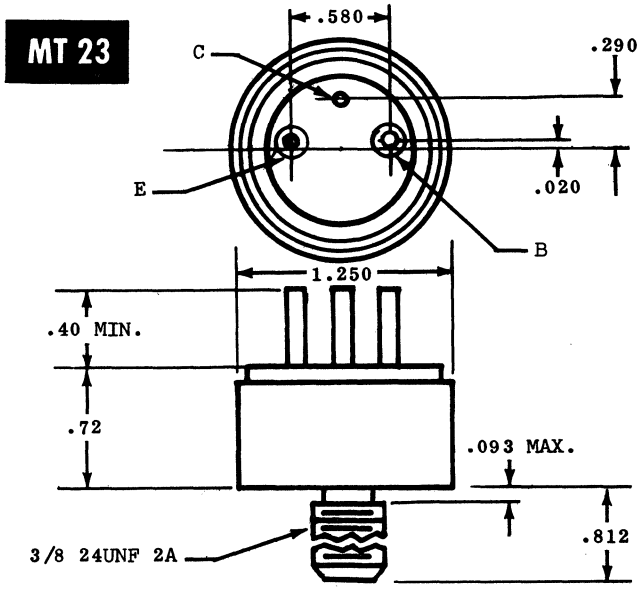


1. Complete threads entend to within 2 1/2 threads of seating plane.
2. The Collector is in electrical contact with the case.

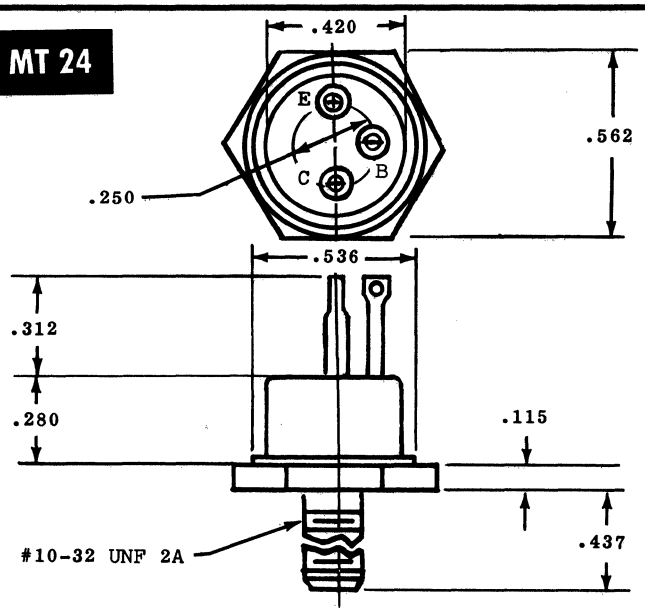
MT 22



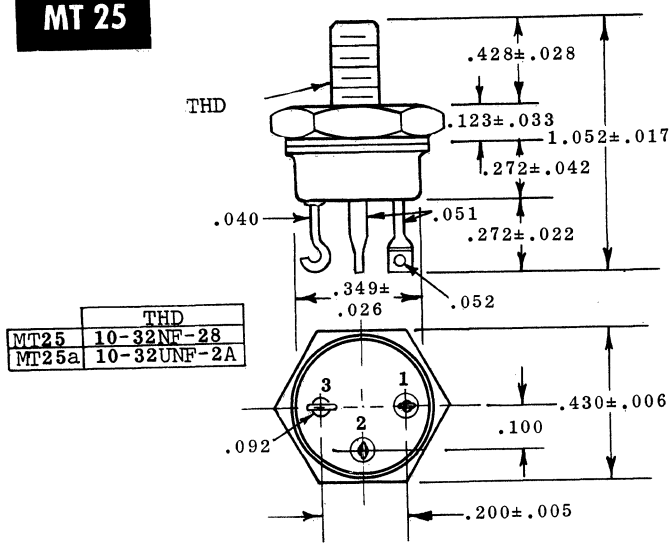
MT 23



MT 24

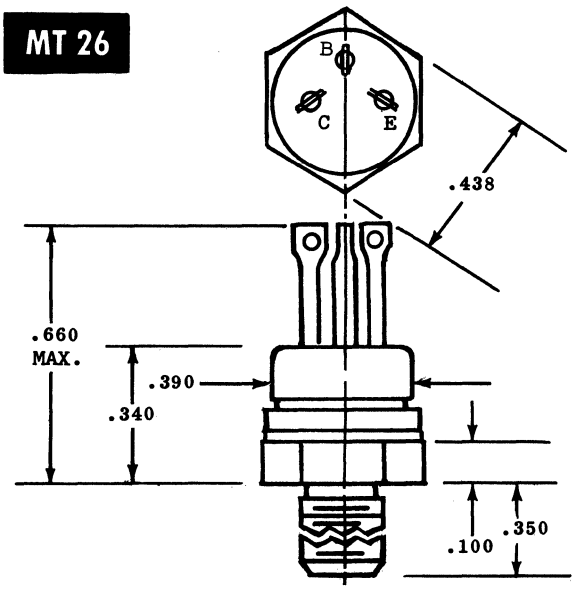


MT 25

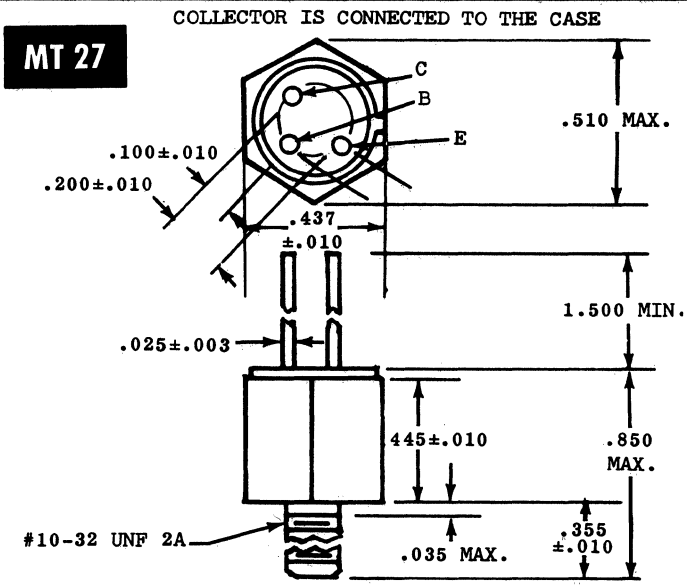


	THD
MT25	10-32NF-2B
MT25a	10-32UNF-2A

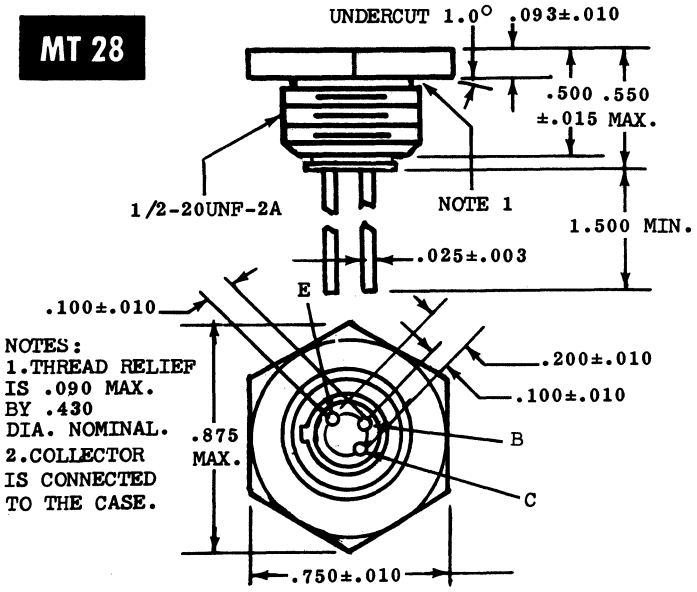
MT 26



MT 27

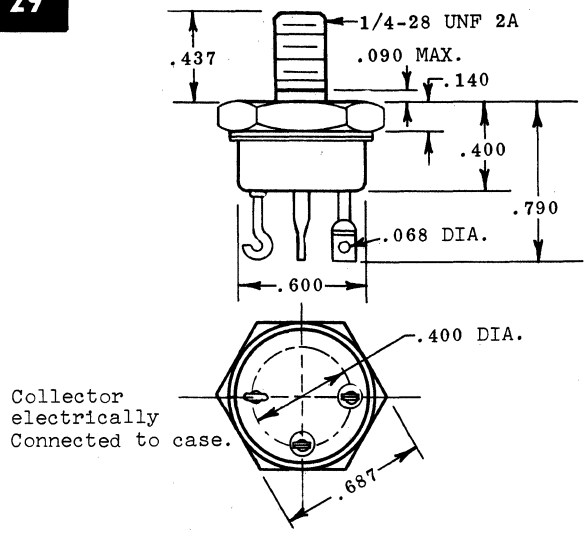


MT 28



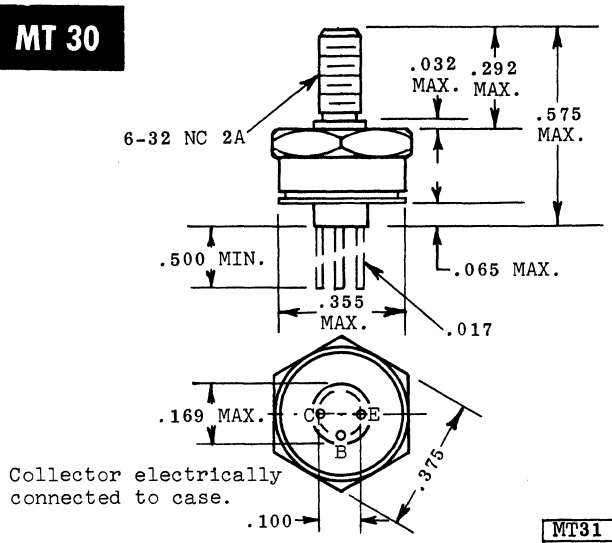
NOTES:
1. THREAD RELIEF IS .090 MAX. BY .430 DIA. NOMINAL.
2. COLLECTOR IS CONNECTED TO THE CASE.

MT 29



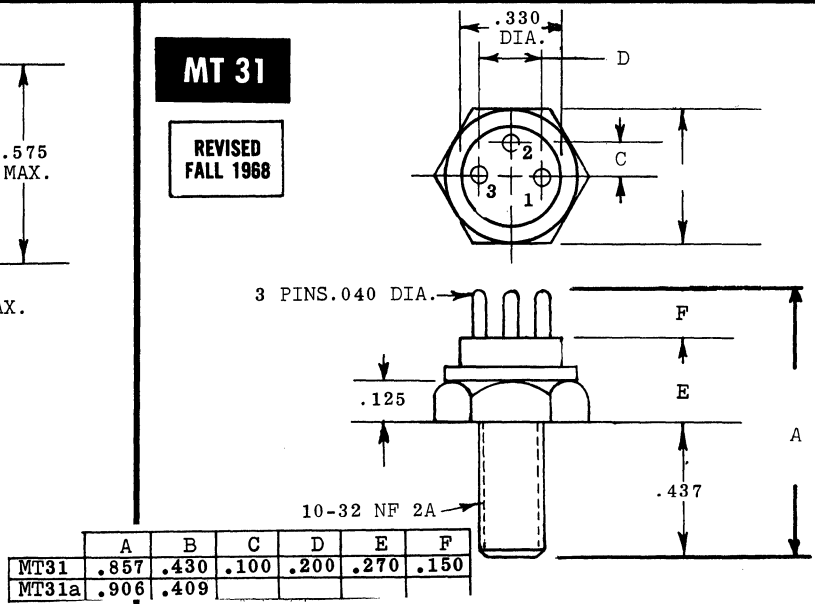
Collector electrically Connected to case.

MT 30



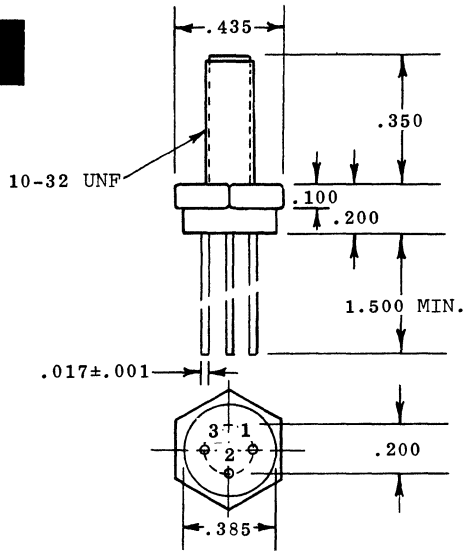
MT 31

REVISED FALL 1968

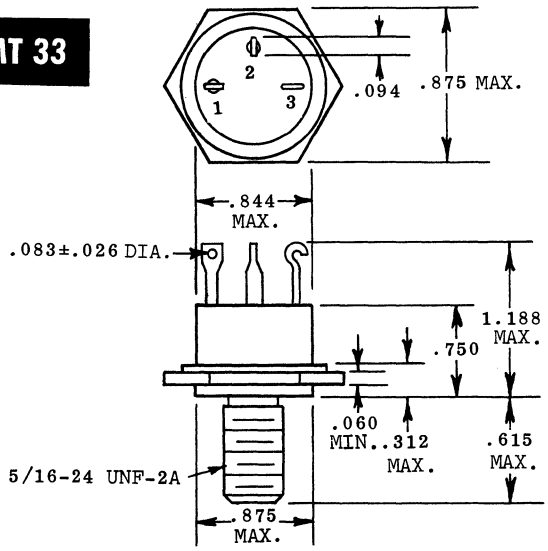


	A	B	C	D	E	F
MT31	.857	.430	.100	.200	.270	.150
MT31a	.906	.409				

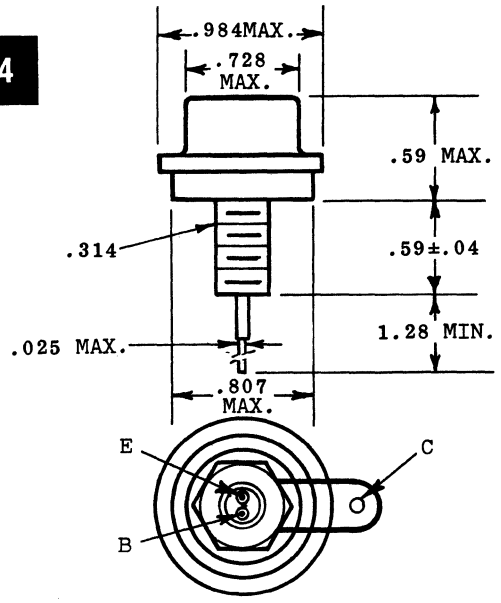
MT 32



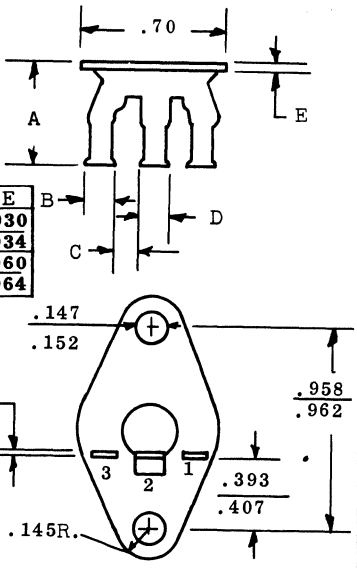
MT 33



MT 34

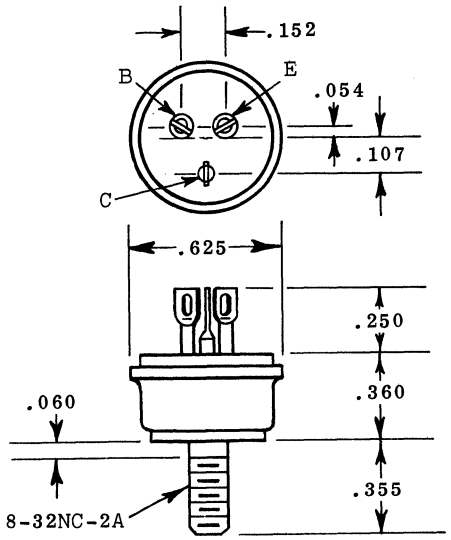


MD 35

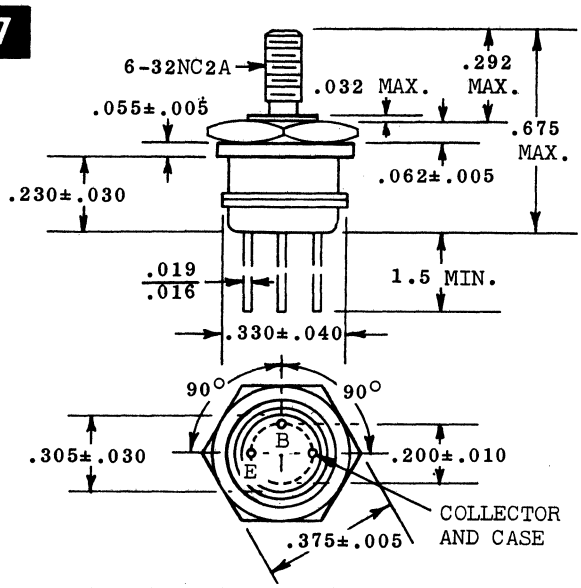


	A	B	C	D	E
MD35	.442 / .448	.125	.125	.156	.030 / .034
MD35a	.405 / .435	.105 / .135	.105 / .135	.105 / .135	.060 / .064

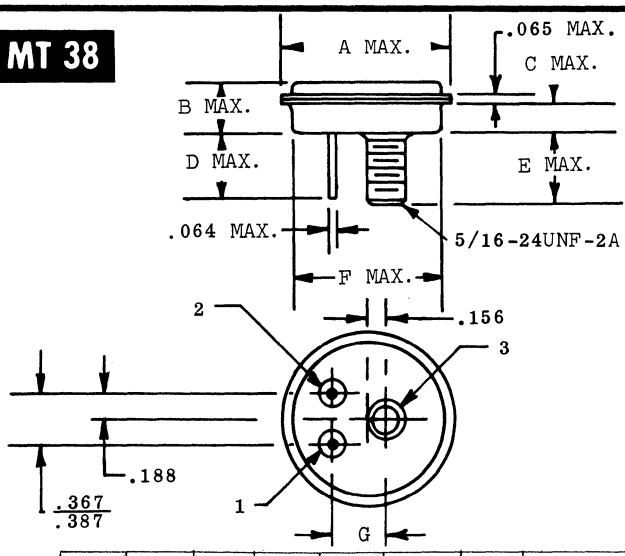
MT 36



MT 37

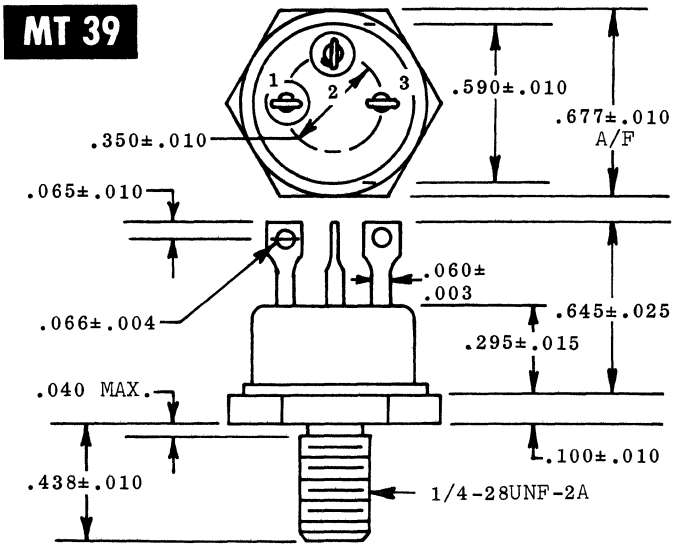


MT 38

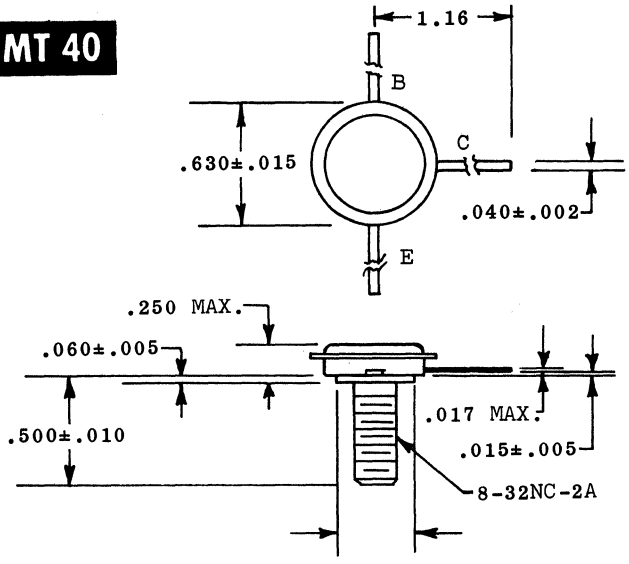


	A	B	C	D	E	F	G	THD
MT38	1.30	.415	.240	.566	.577	1.133	.452	5/16-24UNF-2A
MT38a	1.02	.591		.551	.575	1.02	.449	

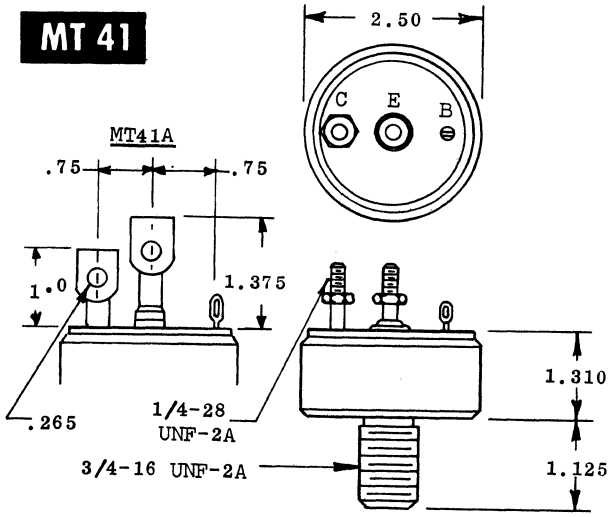
MT 39



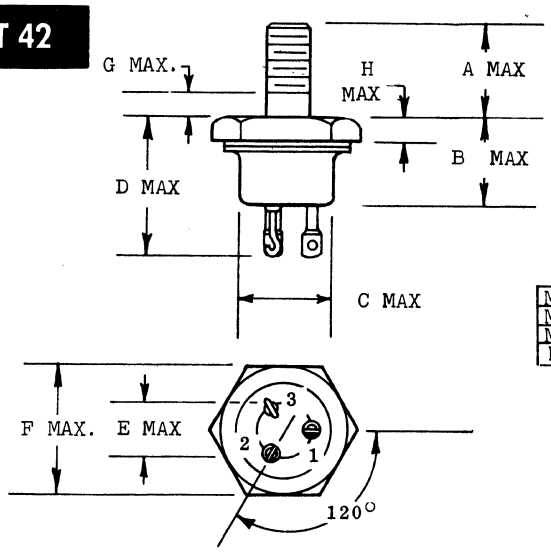
MT 40



MT 41

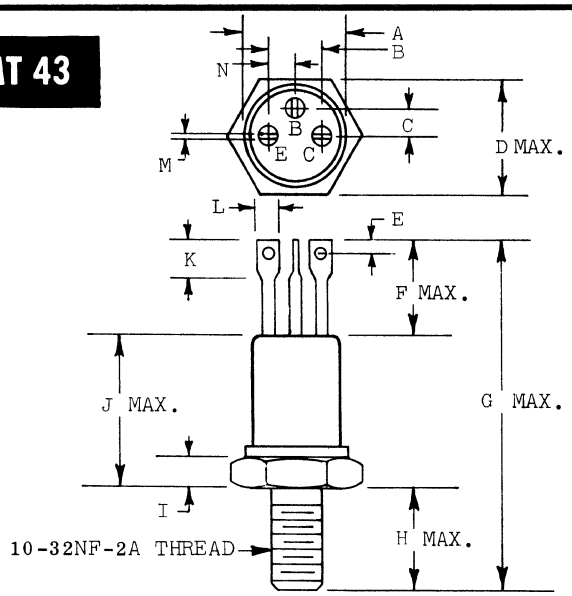


MT 42



	A	B	C	D	E	F	G	H	THD
MT42	.437	.394	.352	.669	.185	.437	.125	.078	10-32NF-2A
MT42a	.440	.400	.355	.675	.190	.437	.125	.078	10-32NF-2A
MT42b	.455	.468	.380	.763	.145	.437	.078	.150	10-32UNF-2A
MT42c	.425	.390	.375	.650	.200	.437	.550	.078	10-32NF-2A

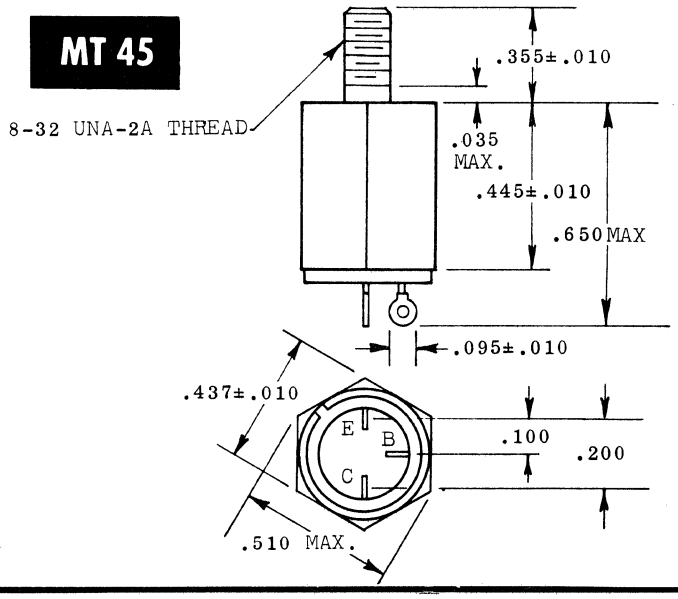
MT 43



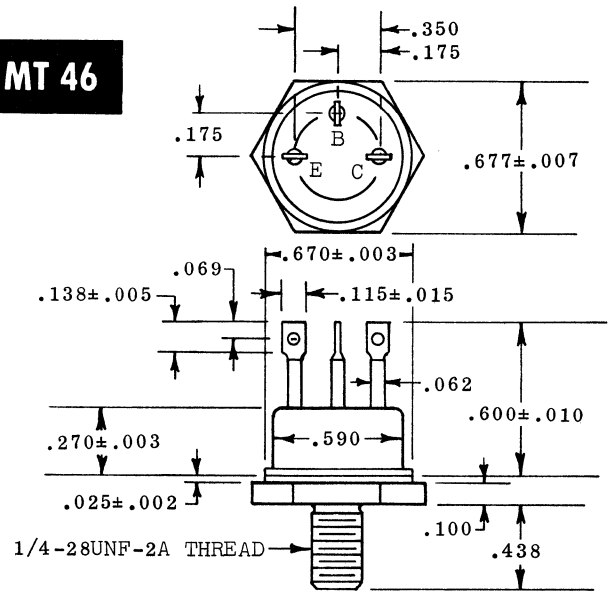
	A	B	C	D	E	F	G
MT43	.332	.210	.105	.438	.055	.330	1.25
MT43a	.437	.215	.110	.437		.295	1.22

	H	I	J	K	L	M	N
MT43	.455	.099	.455	.125	.090	.024	.105
MT43a	.455	.150	.468				

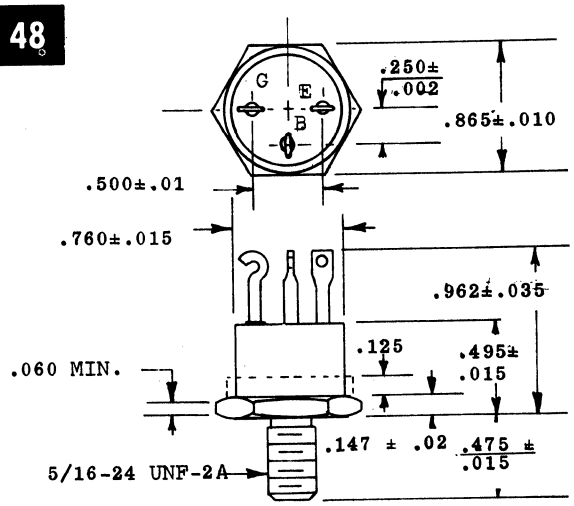
MT 45



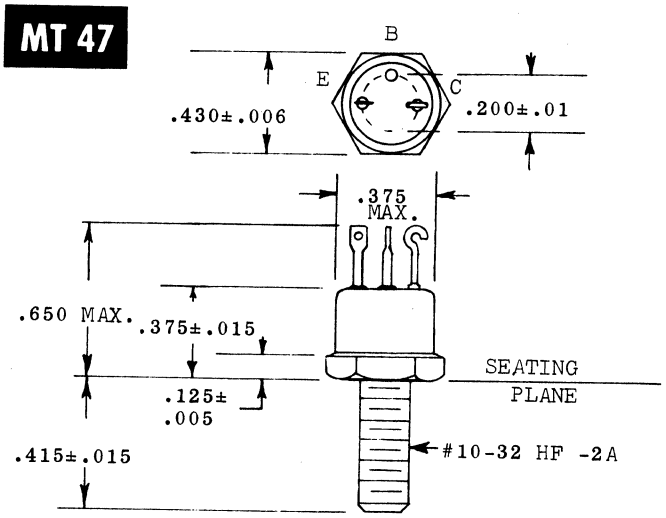
MT 46



MT 48

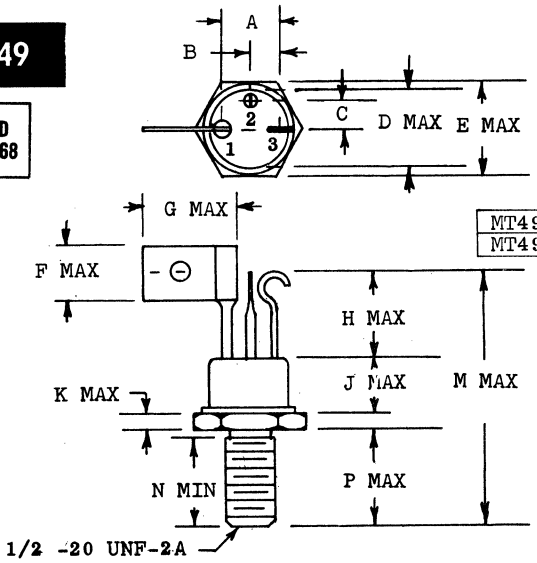


MT 47



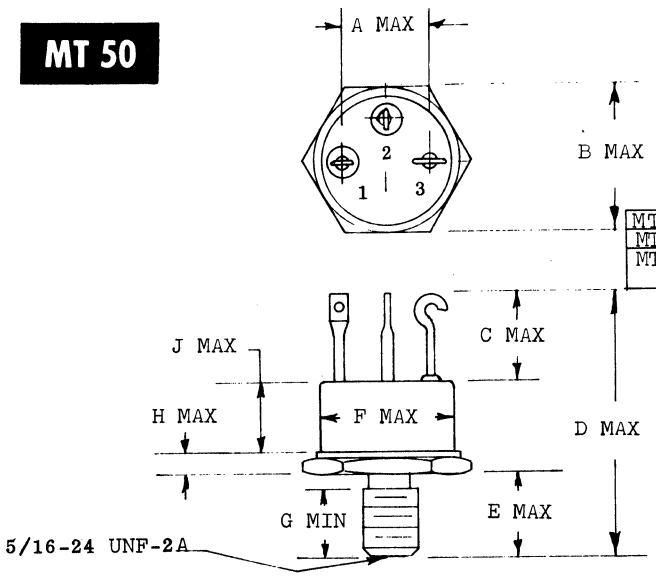
MT 49

REVISED FALL 1968



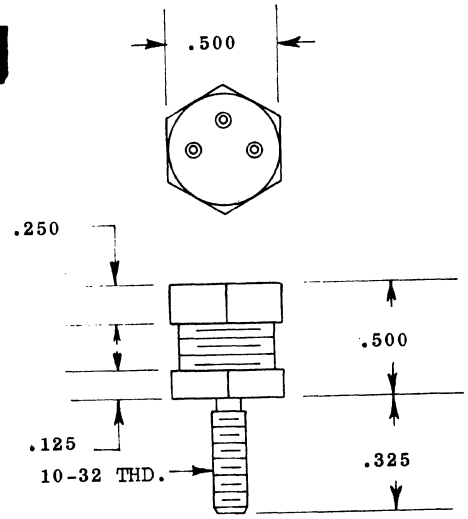
	A	B	C	D	E	F	G	H	J	K	M	N	P
MT49	.584	.335	.312	.903	1.067	.640	.890	.880	.530	.213	2.433	.700	.810
MT49a		.254	.317	.910	1.062			.485	.590	.185	2.495	.690	.815

MT 50

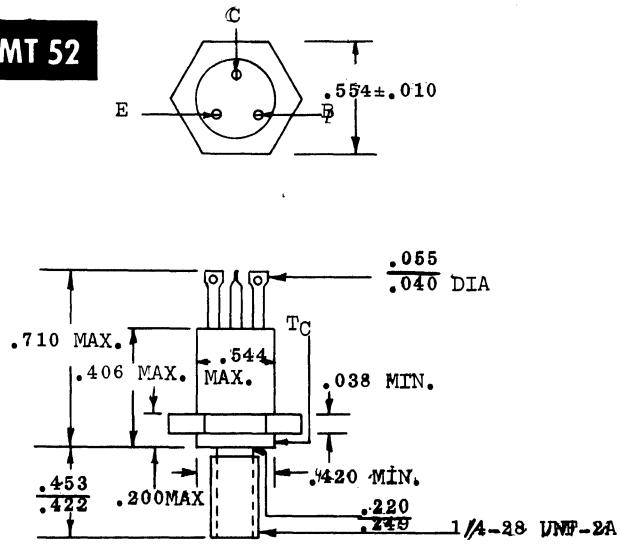


	A	B	C	D	E	F	G	H	J	THREAD
MT50	.505	.875	.482	1.513	.490	.766	.359	.148	.375	5/16-24UNF-2A
MT50a	.415	.687	.350	1.245	.455	.610	.365	.125	.315	1/4-28UNF-2A
MT50b	.510	.875	.497	1.497	.490	.775		.060 MIN.	.343	5/16-24UNF-2A

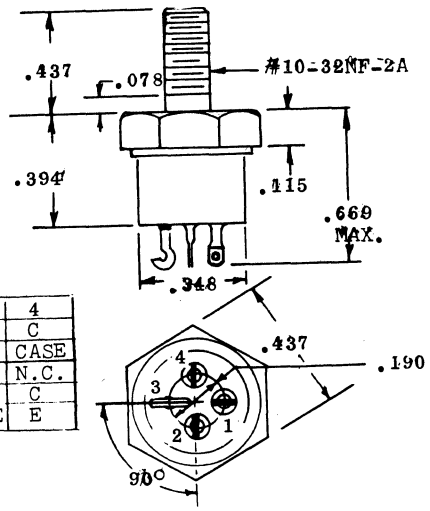
MT 51



MT 52

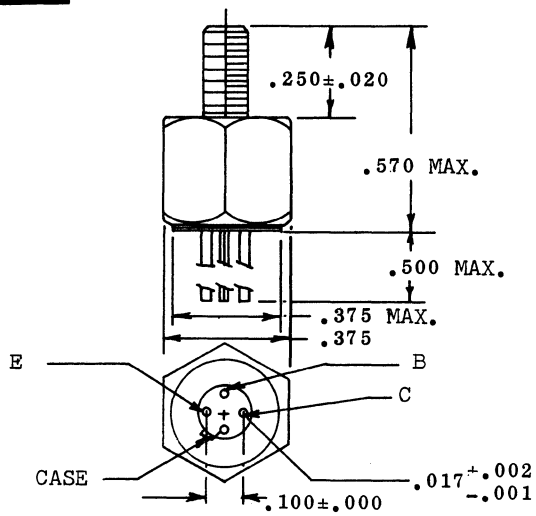


MT 53

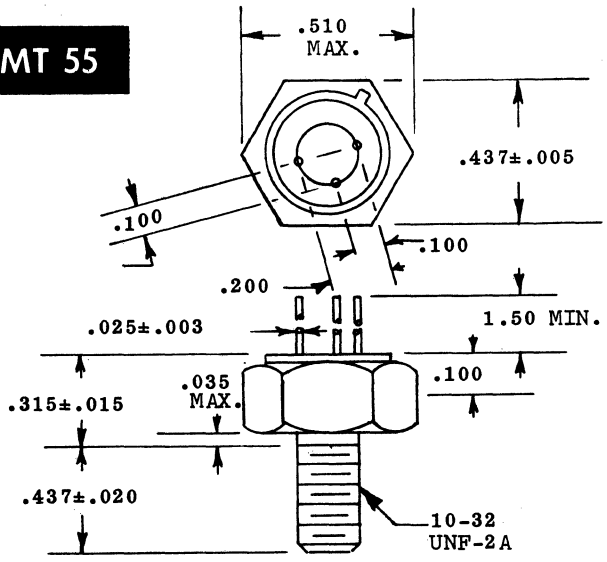


	1	2	3	4
MT53	E	B2	B1	C
MT53a	E	B	C	CASE
MT53b	E	B	C	N.C.
MT53c	E2	B	E1	C
MT53d	B	C	CASE	E

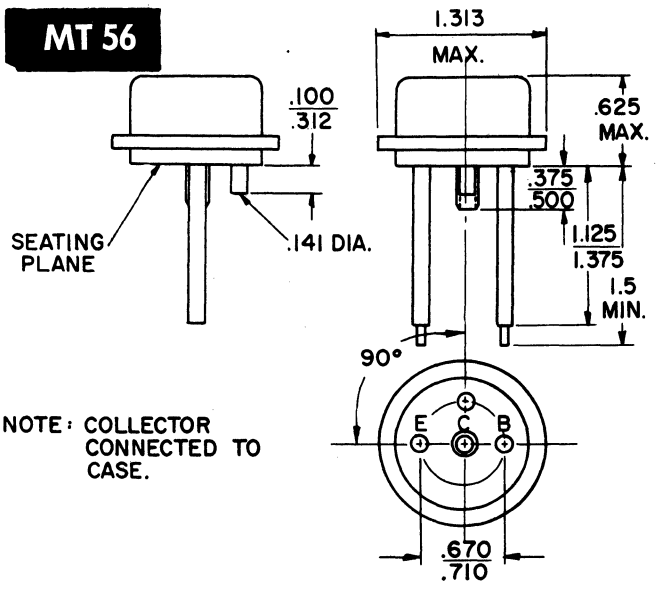
MT 54



MT 55

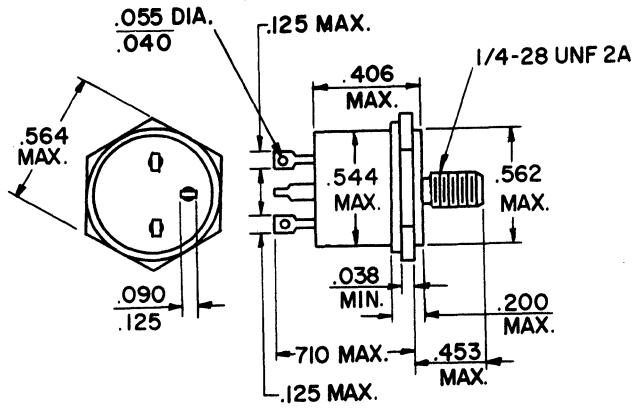


MT 56

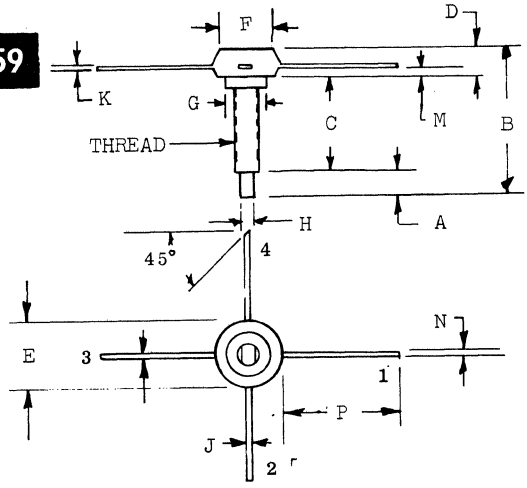


NOTE: COLLECTOR CONNECTED TO CASE.

MT 58



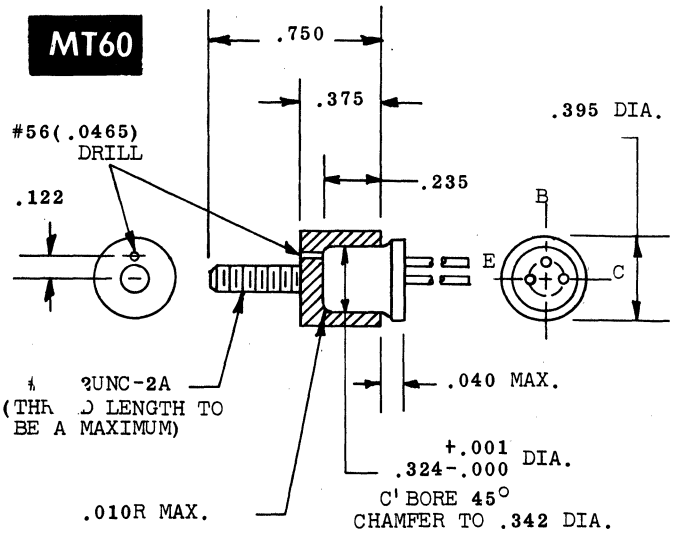
MT59



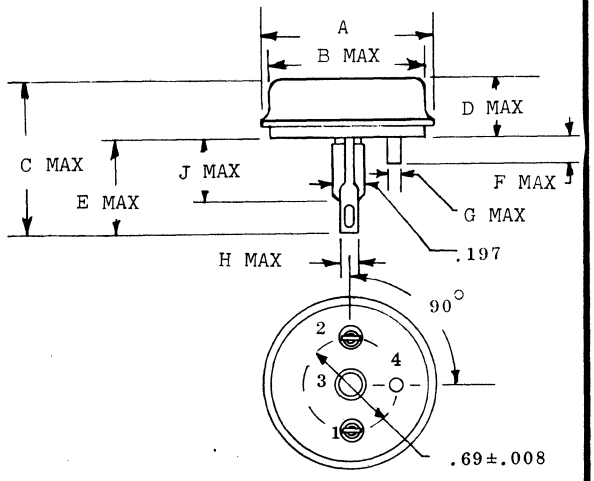
REVISED SPRING 1969

	A	B	C	D	E	F	G	H	J	K	M	N	P	THREAD
MT59	.125	.655	.500	.155	.375			.060	.030	.015	.055	.030	.450	8-32UNC-2B
MT59b	.118	.655	.500	.155	.375			.060	.030	.015	.055	.030	.450	8-32UNC-2B
MT59c	.145	.655	.500	.155	.375			.060	.030	.015	.055	.030	.450	8-32UNC-2B
MT59d	.118	.787	.626	.614	.394	.378	.276	.079	.079	.0039	.063	.118	.450	8-32UNC-2B
MT59e		.641	.484	.157	.394	.378			.033	.016	.075	.033	.250	M5
MT59f	.145	.615	.355	.160	.365	.365	.250	.060	.223	.006	.070	.223	.375	8-32UNC-2A
MT59g	.145	.670	.385	.155	.365		.250	.060	.030	.015	.055 MIN	.290	.250	8-32UNC-2A
MT59h	.137	.700			.396 MAX		.295 MAX	.078 MAX	.031 MAX	.020 MAX	.125 MAX	.031 MAX	.275 MAX	8-32

MT60

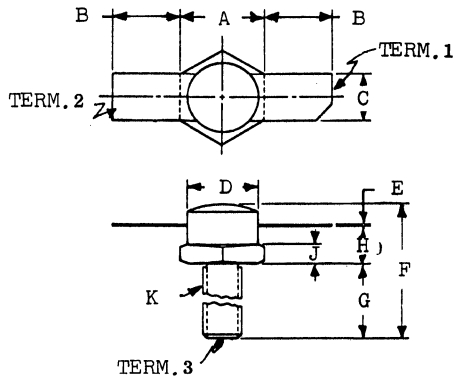


MT61



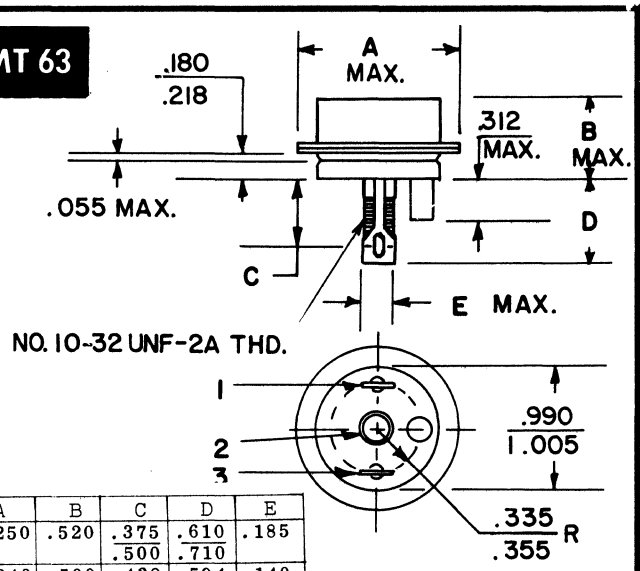
	A	B	C	D	E	F	G	H	J
MT61	1.18		1.00	.410	.690	.300	.109	.142	.480
MT61a	1.10	.960	.98	.350	.630	.240	.120		

MT 62



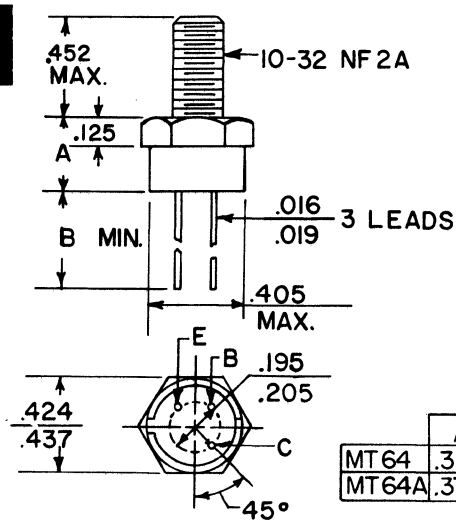
	A	B	C	D	E	F	G	H	J	K
MT62	.420 .435	.380	.250	.375	.005	.765	.440	.190	.100	10-32
MT62a	.660 .700	.425	.380	.600	.007	.850	.440	.260	.150	1/4-28
MT62b	.431	.350	.250	.407	.006	.725	.440	.190	.110	10-32UNF-2A

MT 63



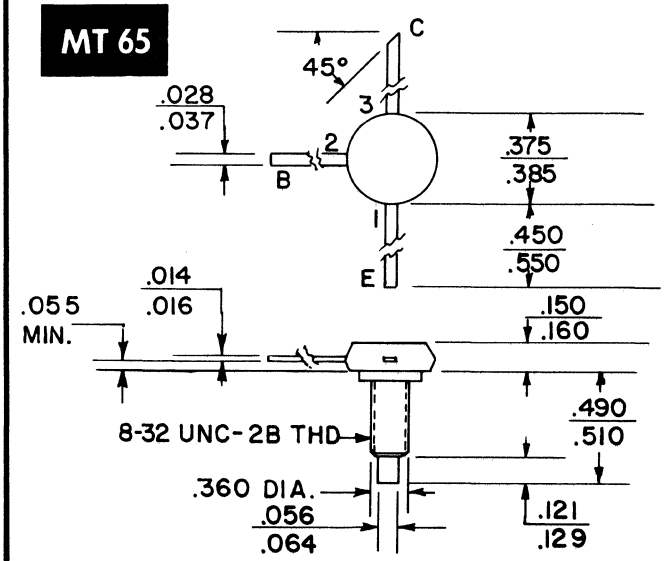
	A	B	C	D	E
MT63	1.250	.520	.375 .500	.610 .710	.185
MT63a	1.240	.500	.438 .468	.594 .718	.140

MT 64



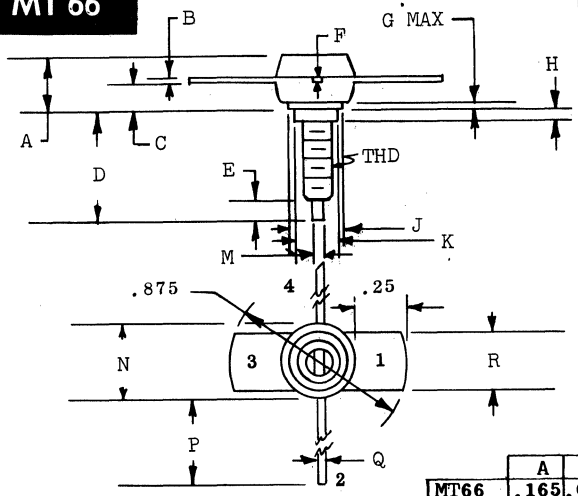
	A	B
MT64	.310	1.500
MT64A	.375	1.435

MT 65



MT 66

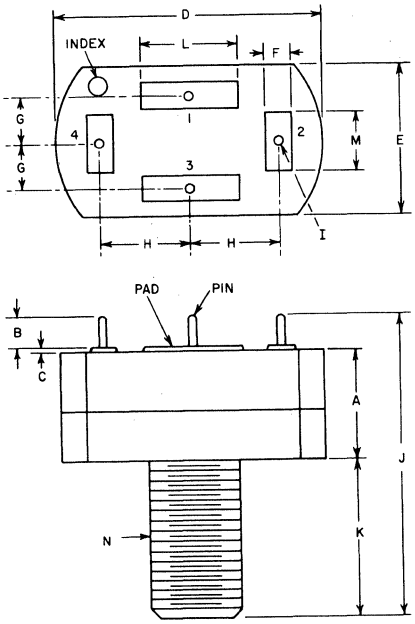
REVISED SPRING 1969



	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	THD
MT66	.165	.015	.055	.515	.145	.015	.020	.060	.285	.250	.060	.375	.500	.030	.290	
MT66a	.220	.003	.106	.512	.118	.007			.323	.275	.079	.433	.075	.079	.118	M4

MT67

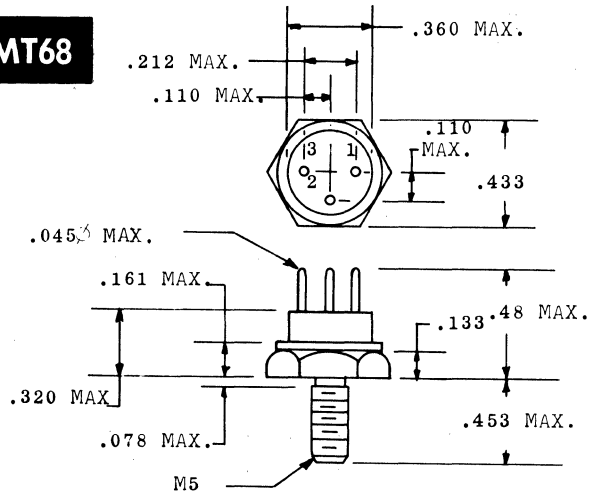
REVISED FALL 1969



	A	B	C	D	E	F	G	H	I	J
MT67	.218 .234	.072 .085	.015 MAX	.469 .490	.337 .345	.055	.089 .105	.140 .150	.021 .023	.655 .724
MT67a	.280 .315	.069 .088	.015 MAX	.650 .680	.360 .380	.055 .065	.111 .131	.213 .233	.020 .025	.785 .850

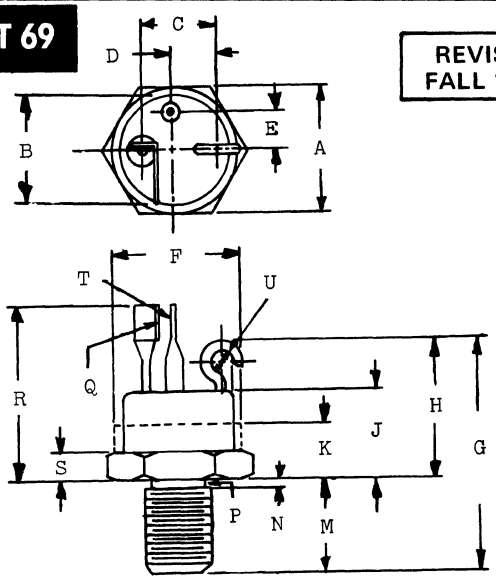
	K	L	M	N
MT67	.360 .390	.145		10-32UNF-2A
MT67a	.420 .460	.235 .250	.135 .150	1/4-28UNF-2A

MT68



MT 69

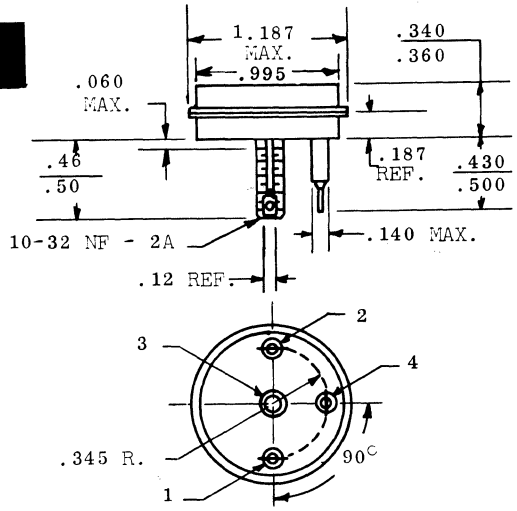
REVISED FALL 1969



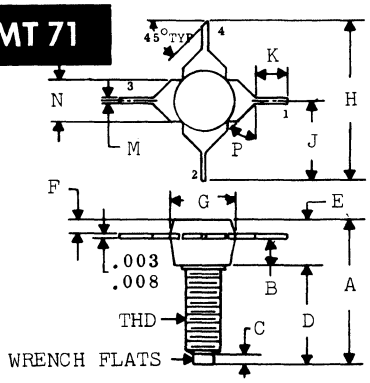
	A	B	C	D	E	F	G	H	J	K
MT69	1.04 1.07	.885 .915	.531 .609	.219 .266	.281 .328	.915 1.08	1.82 2.14	1.048 1.313	.688 .797	.375 MAX
MT69a	1.03 1.06						1.82 2.57			.090 .400

	M	N	P	Q	R	S	T	U
MT69	.781 .828	.156 MAX	.425 .500	.180 .210	1.35 1.75	.090 .270	.078 .109	.234 .281
MT69a	.781 .828	.156 MAX	.425 .500		1.04 1.75			.234 .281

MT 70

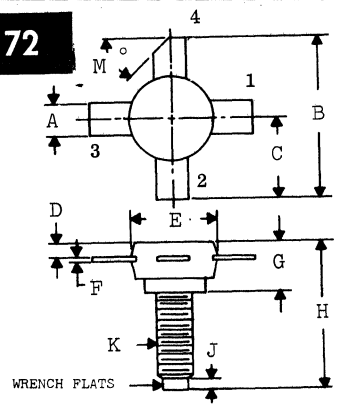


MT 71



	A	B	C	D	E	F	G	H	J	K	M	N	P	THD
MT71	.675 .695		.120 .130	.360 .350	.195 .215	.065 .085	.365 .385	1.055 1.065	.520 .540	.180 TYP	.025 .035	.220 TYP		8-32N.C.2A
MT71a	.597 .680	.066 MAX	.137 MAX	.393 .531	.149 MAX	.065 MAX	.396 MAX	1.106 MAX	.335 .355		.030 .036	.220 .230		8-32UNC
MT71b	.710 .750		.100 .130	.465 .475	.245 .275	.080 .100	.365 .385	1.055 1.065	.520 .540	.220 .230	.025 .035	.215 .225	35°	8-32N.C.3A
MT71c	.710 .750		.100 .130	.465 .475	.245 .275	.080 .100	.365 .325	1.055 1.065	.524 .524	.175 .185	.025 .035	.215 .225	45°	8-32N.C.3A

MT 72



	A	B	C	D	E	F	G	H	J	K	M
MT72	.220 .230	1.055 1.065	.520 .540	.065 .085	.465 .485	.003 .008	.240 .260	.710 .730	.120 .130	8-32N.C.2A	45°
MT72a	.225	1.0 MIN			.390 MAX	.005 .010	.195	.640	.115	8-32UNC24THD	45°
MT72b	.120 .125		.358 .378		.220 .240	.008	.200	.305 MAX	.145	6-32	30°
MT72c	.146	.984 1.142	.571	.102	.375 MAX	.005 MAX	.226	.687	.134	8-32UNC	
MT72d	.223 MAX			.045 TYP	.355 .375	.006 TYP	.155 .165	.595 .635	.130	8-32UNC-2A	45°
MT72e	.225 MAX			.104 TYP	.490 .510	.006 TYP	.260 .280	.700 .750	.120	8-32UNC-2A	45°
MT72j	.031			.082	.393	.157		.484		8-32UNC-2A	

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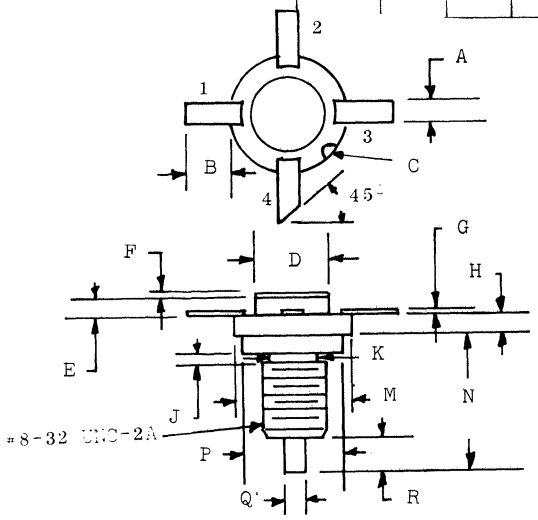
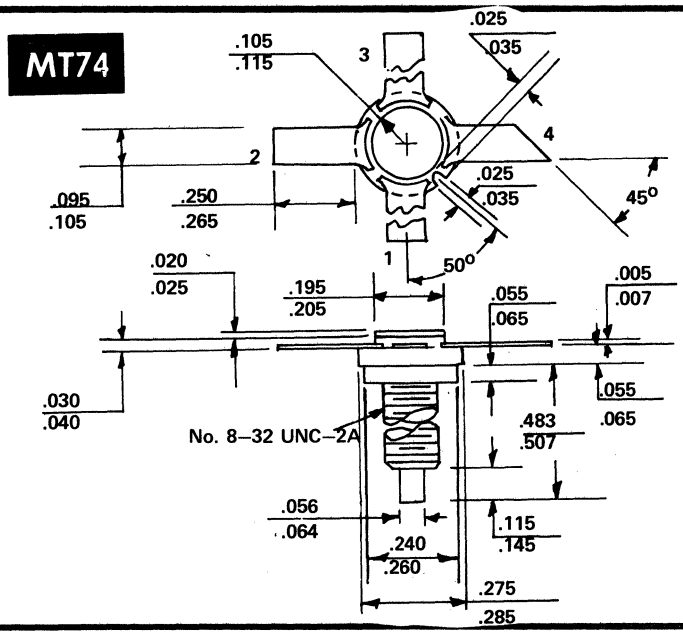
MT 73

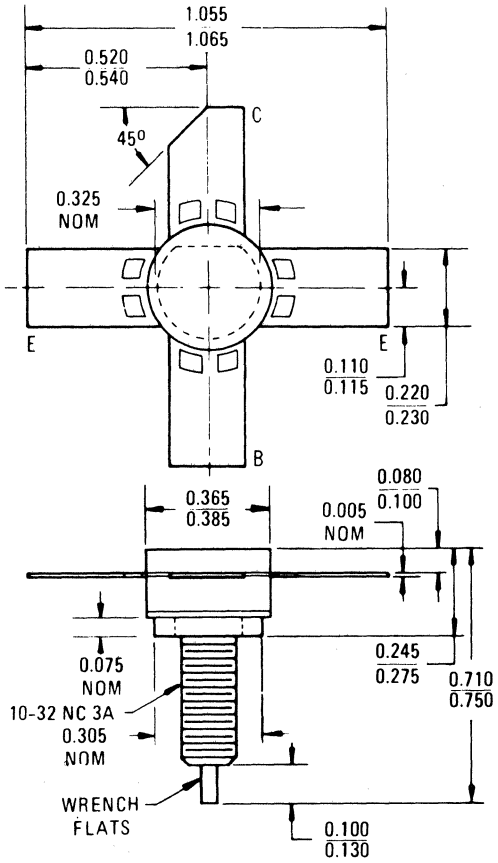
	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R
MT73	.060	.100	NA	.200	.025	.010	.005	.070	.078 MAX	.120 .163	.276 .286	.483 .527	.245 .255	.060 over flats on a .120 dia.	.115 .145
MT73a	.095 .105	.250 .265	.025 .035	.195 .205	.030 .040	.020 .025	.005 .007	.055 .065	NA	NA	.275 .285	.483 .527	.240 .260	.056 over flats on a .115 .120dia	.115 .145



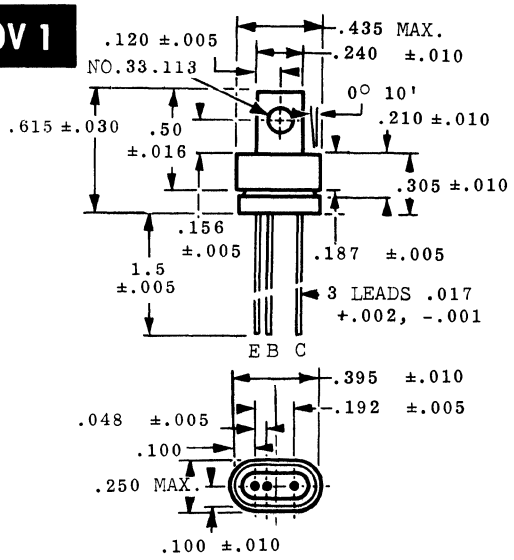
MT74



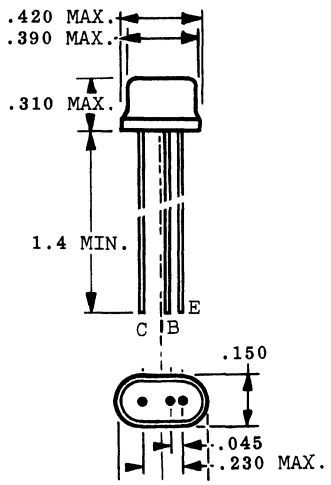
MT75



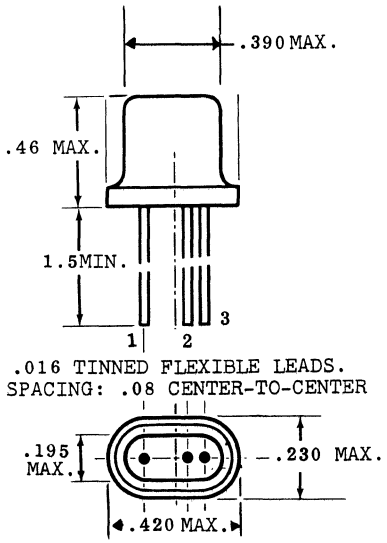
OV 1



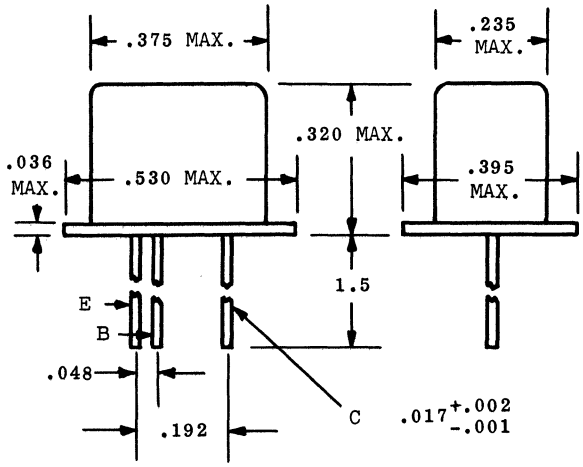
OV 3



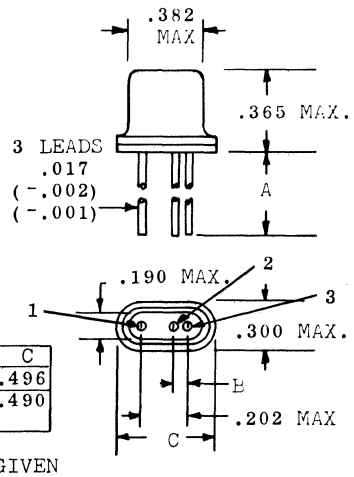
OV 4



OV 5



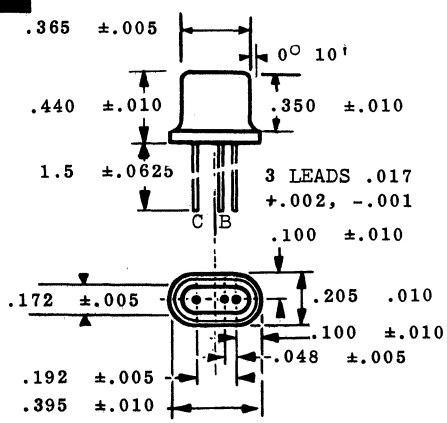
OV6



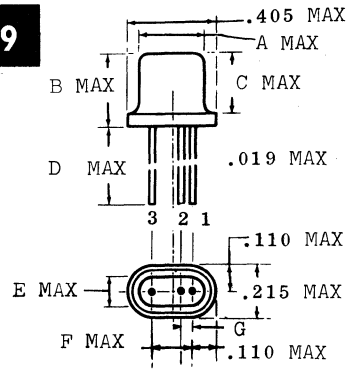
	A	B	C
OV6	1.532	.053	.496
OV6a	1.437 MIN.	.058	.490

MAX. DIMENSIONS GIVEN

OV 7

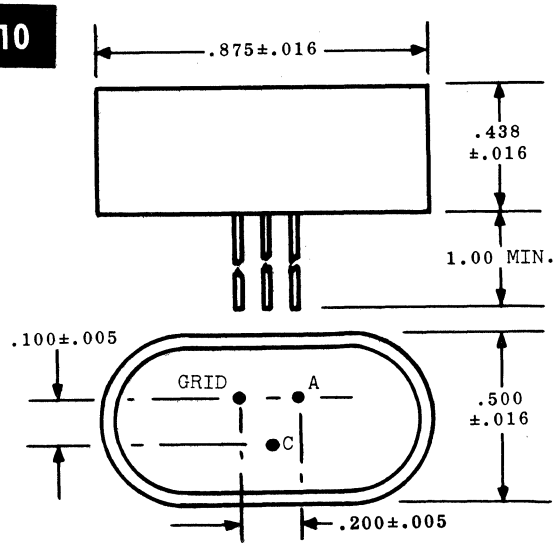


OV9

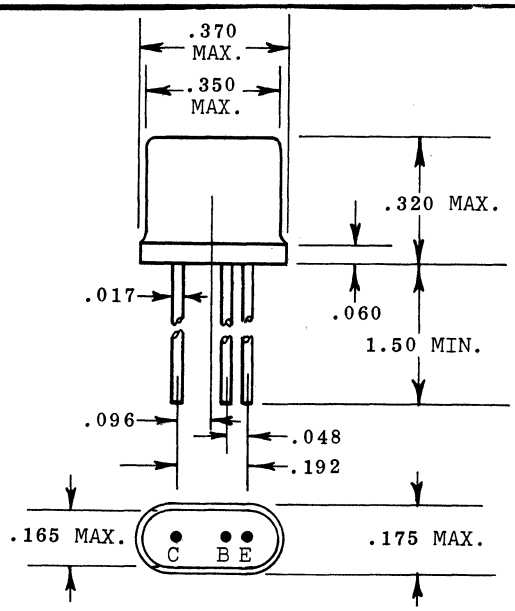


	A	B	C	D	E	F	G
OV9	.370	.315	.220	1.44	.177	.197	.053
OV9a	.365	.310	.280	1.50 MIN	.175	.202	.058

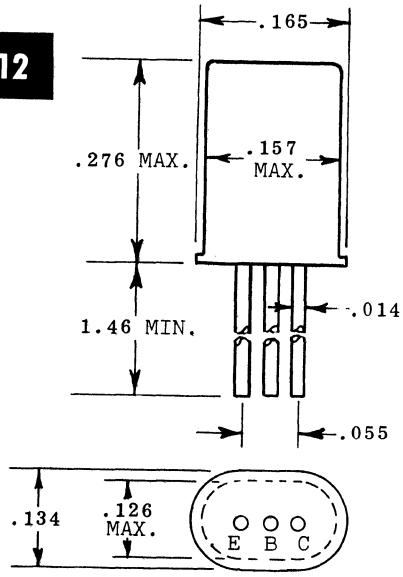
OV 10



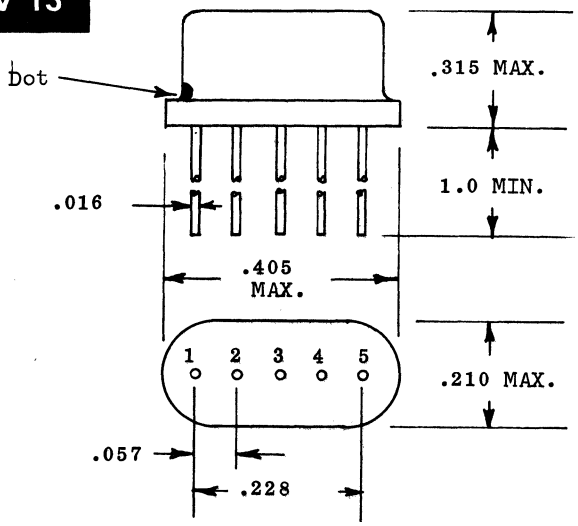
OV 11



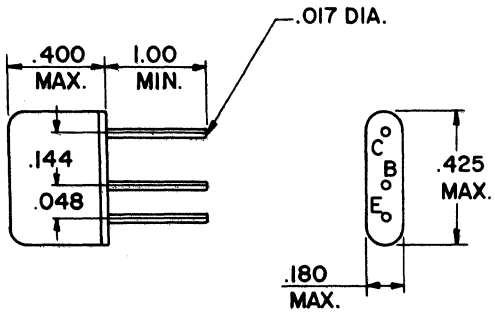
OV 12



OV 13



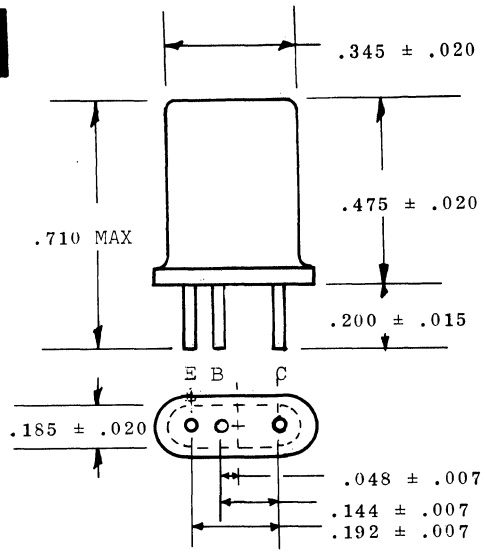
OV 14



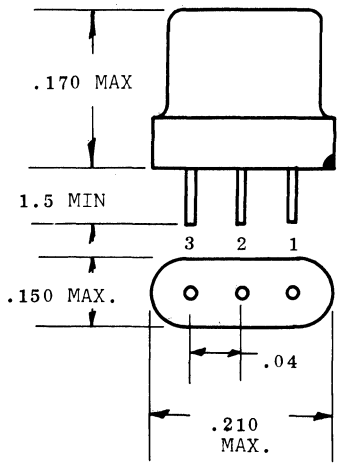
15. OUTLINE DRAWINGS

IN ORDER OF CASE NUMBER

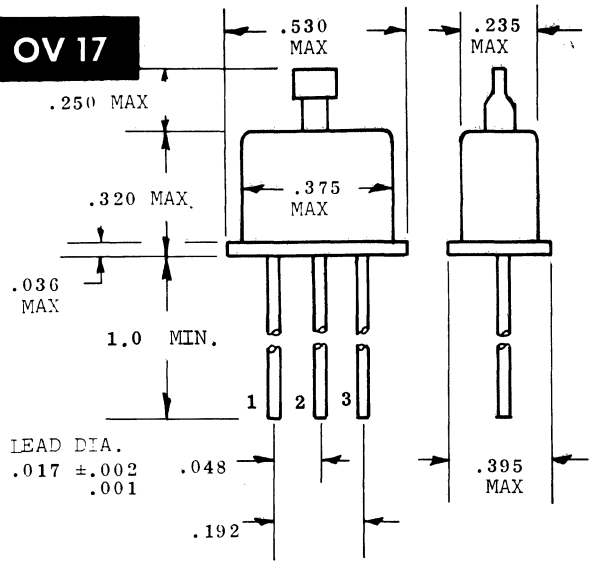
OV 15



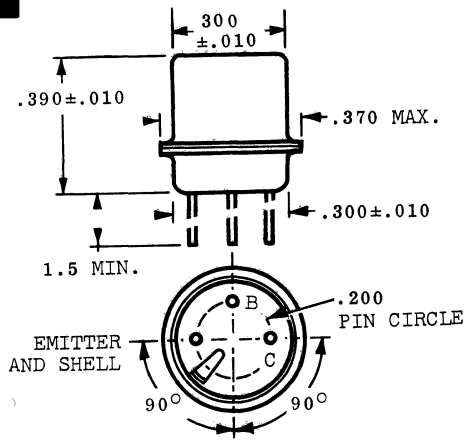
OV 16



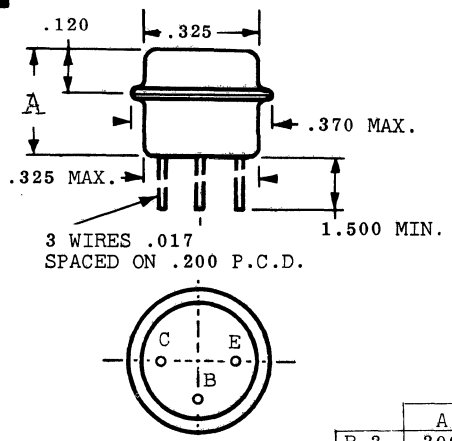
OV 17



R 2

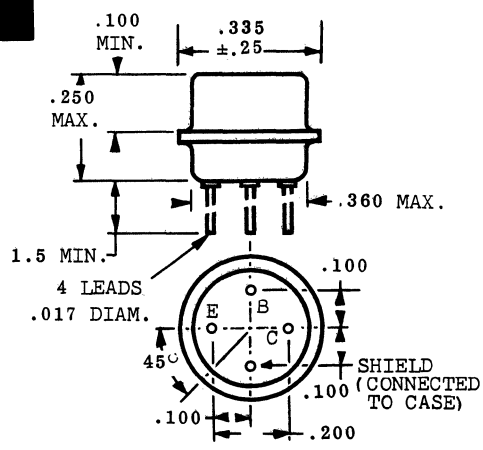


R 3



	A
R 3	.300 MAX
R 3a	.240 .260

R 4

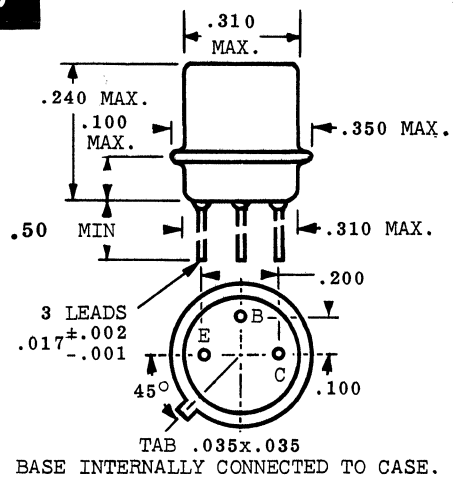


TAB - .035x.035 APPROX.

ALL DIMENSIONS IN INCHES

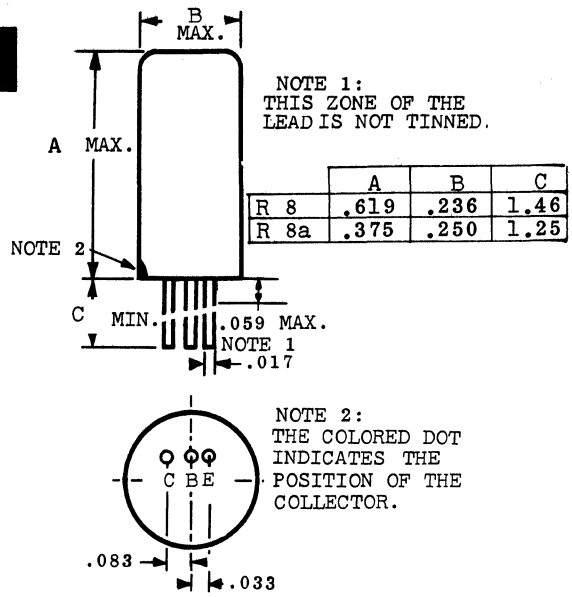
15. OUTLINE DRAWINGS

R 5



BASE INTERNALLY CONNECTED TO CASE.

R 8

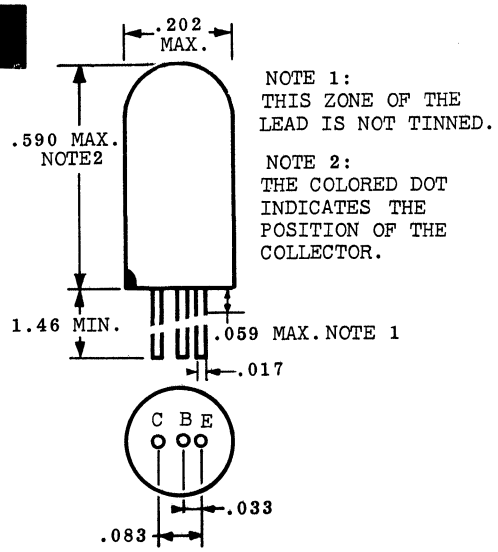


NOTE 1:
THIS ZONE OF THE LEAD IS NOT TINNED.

	A	B	C
R 8	.619	.236	1.46
R 8a	.375	.250	1.25

NOTE 2:
THE COLORED DOT INDICATES THE POSITION OF THE COLLECTOR.

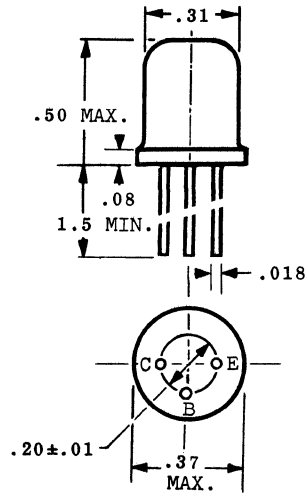
R 9



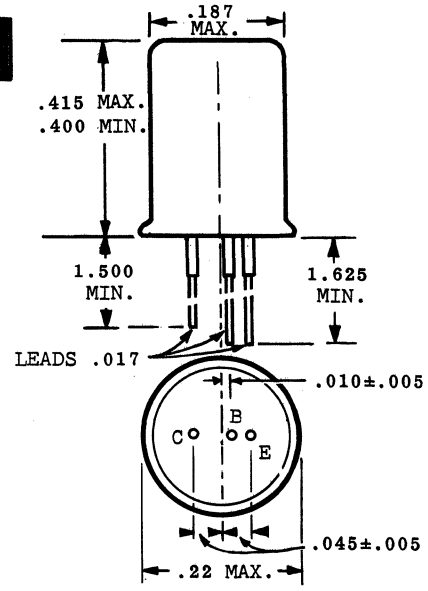
NOTE 1:
THIS ZONE OF THE LEAD IS NOT TINNED.

NOTE 2:
THE COLORED DOT INDICATES THE POSITION OF THE COLLECTOR.

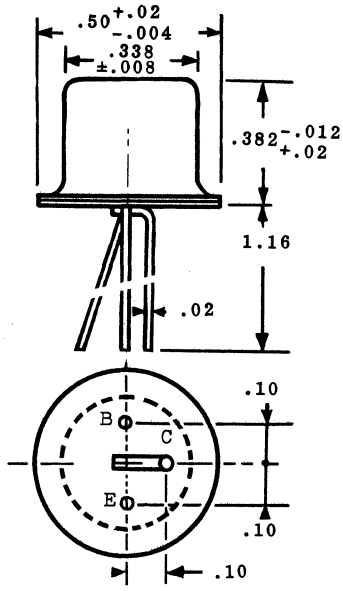
R 10



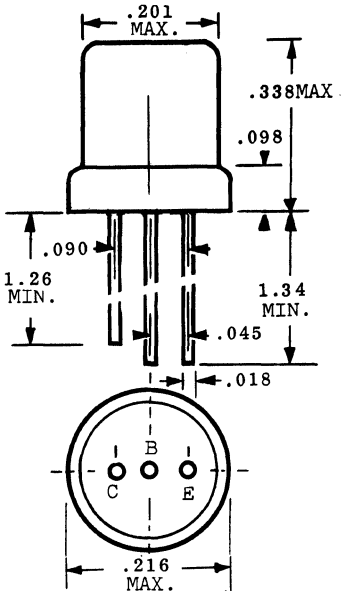
R 12



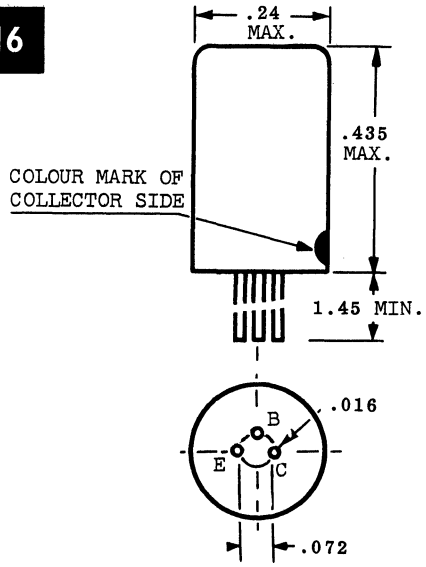
R 13



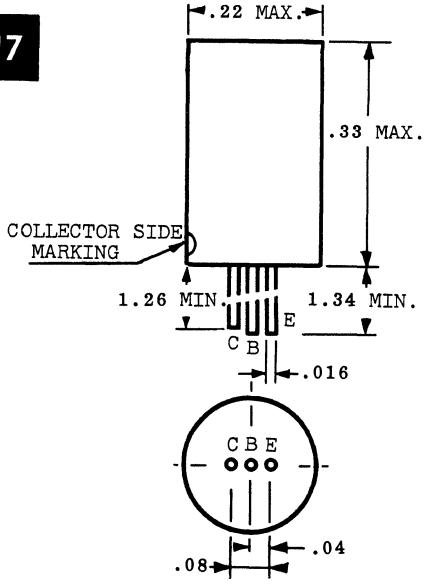
R 14



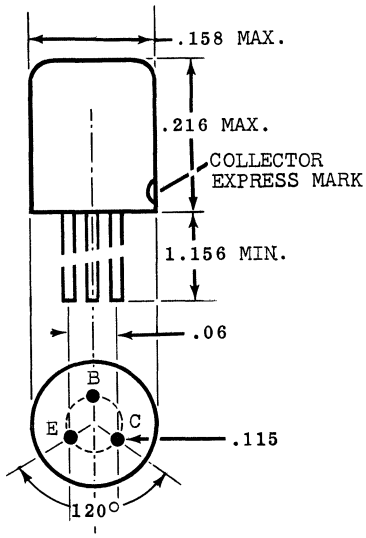
R 16



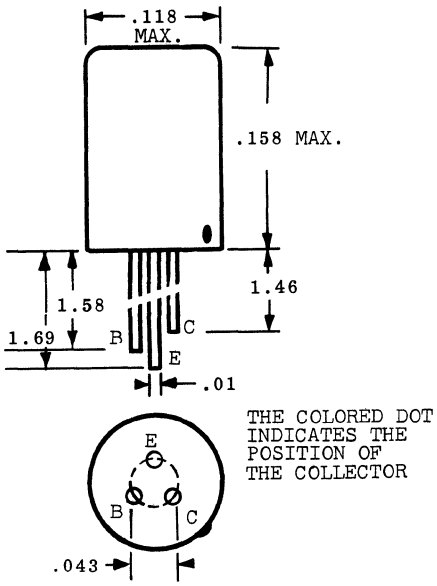
R 17



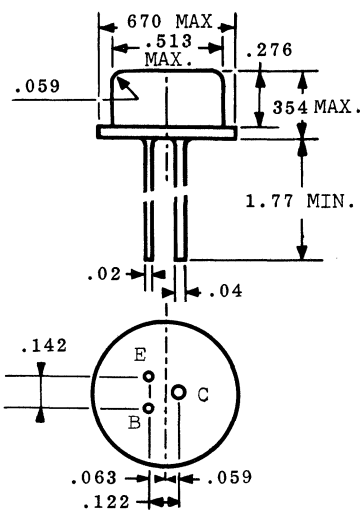
R 18



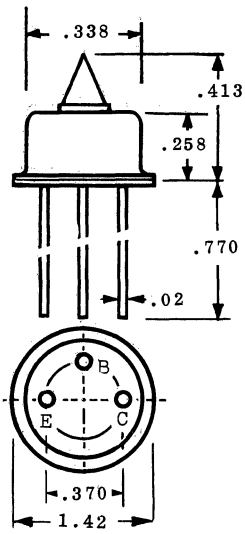
R 19



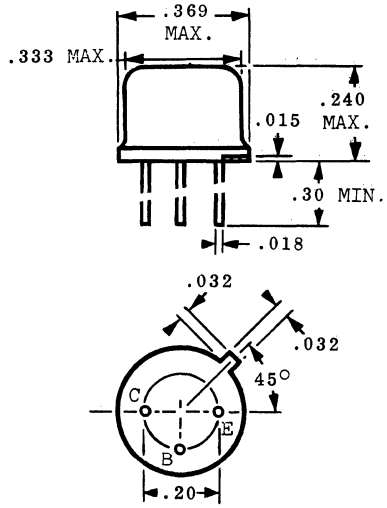
R 20



R 23

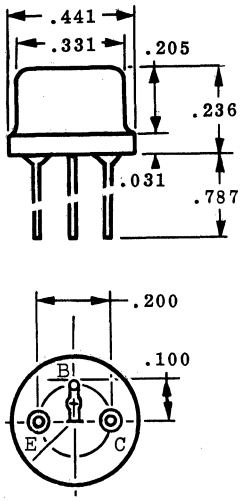


R 24

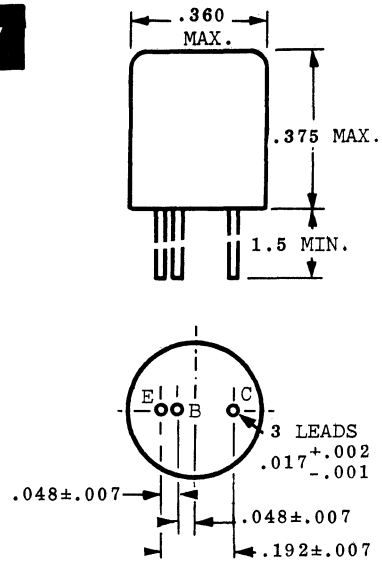


THE COLLECTOR IS GROUNDED INTERNALLY TO THE CASE.

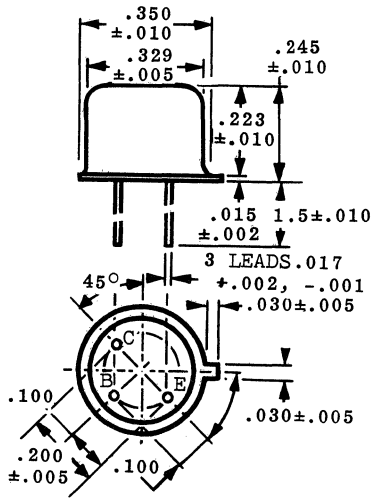
R 26



R 27

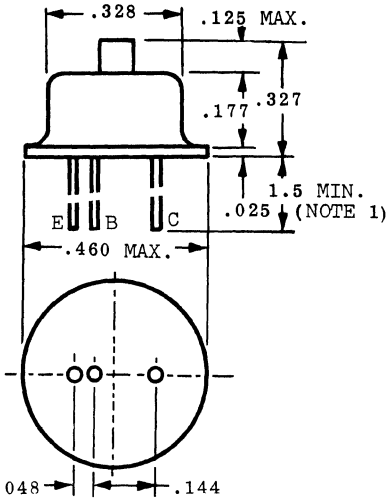


R 30



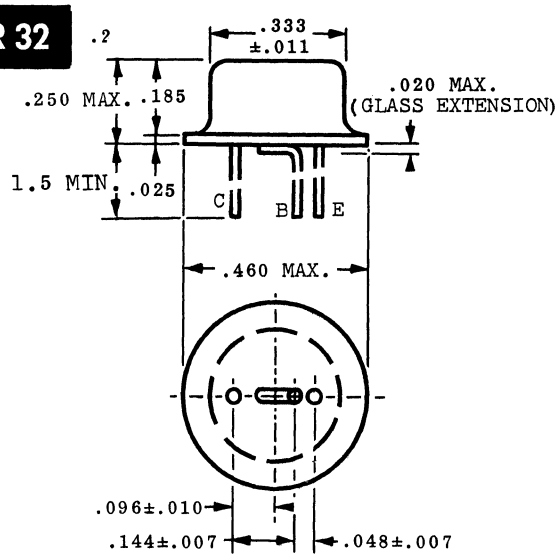
15. OUTLINE DRAWINGS

R 31

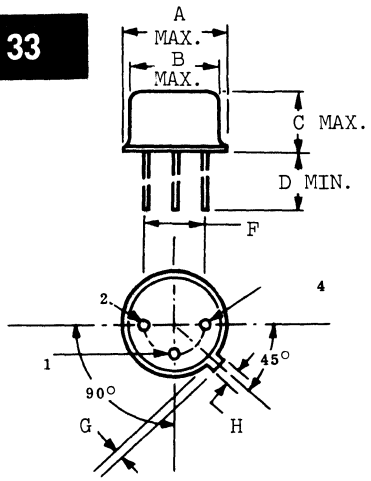


NOTE 1 CUT TO .200 FOR USE IN SOCKETS
LEAD DIAMETER - .017
BASE CONNECTED TO SHELL

R 32

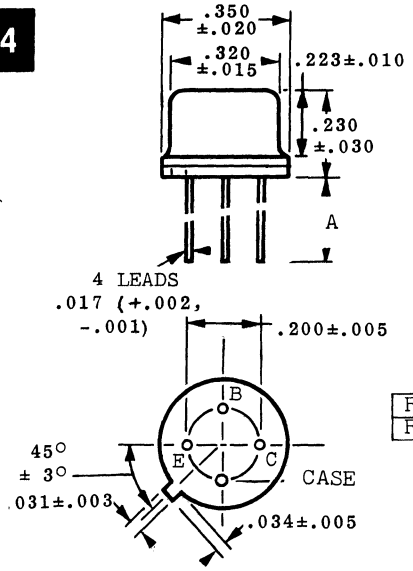


R 33



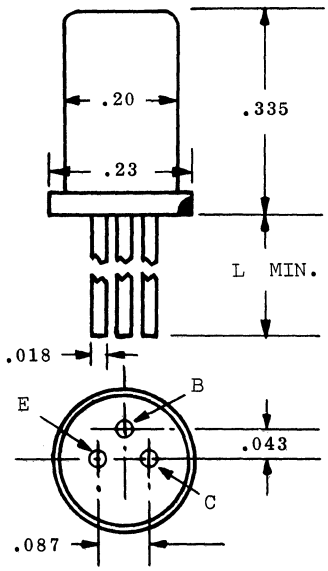
	A	B	C	D	F	G	H
R 33	.370	.335	.260	1.5	.200	.029	.031
R 33a	.230	.195	.210	.500	.100	.038	.056

R 34



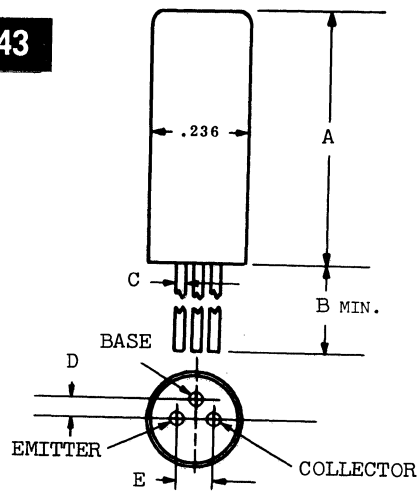
	A	CASE
R 34	.50	YES
R 34a	1.50	NO

R 41
R 42



	L
R 41	1.45
R 42	1.18

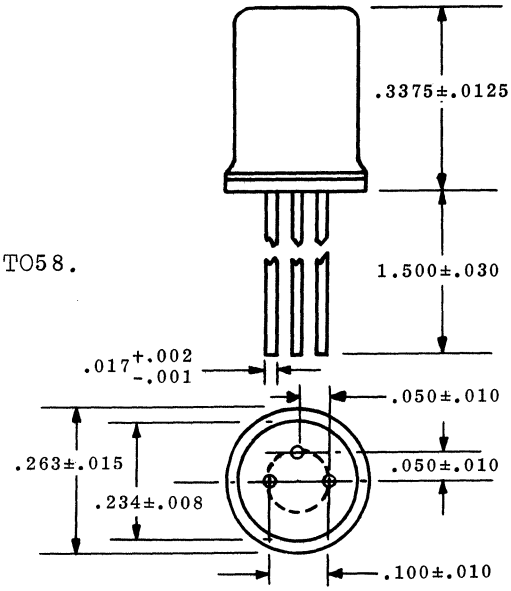
R 43



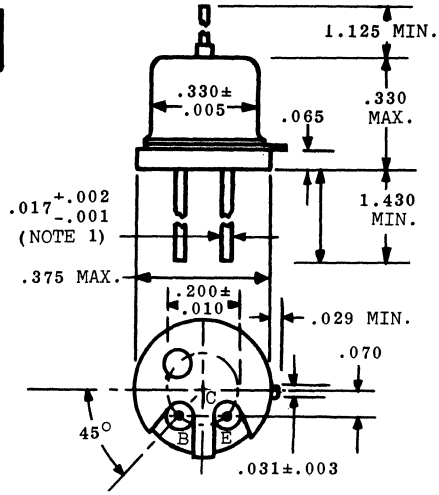
	A	B	C	D	E
R 43	.61	1.45	.018	.043	.087
R 43a	.236	.50	.015	.035	.070

R 44

SAME AS TO58.

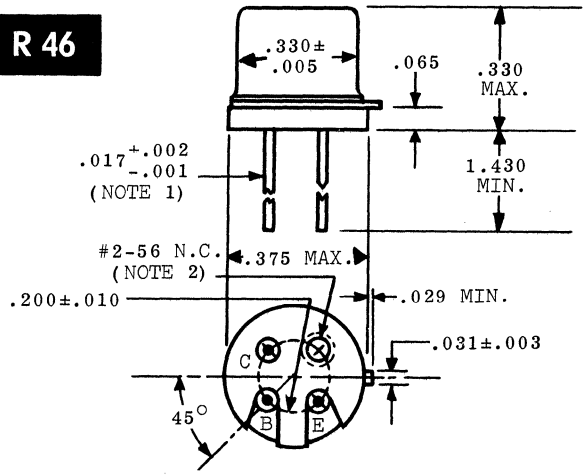


R 45



NOTE 1: Lead diameter is controlled in the zone between .050 and .250 from the cap or base seat. Between .250 and 1.125 or 1.430 a max. of .021 is held.

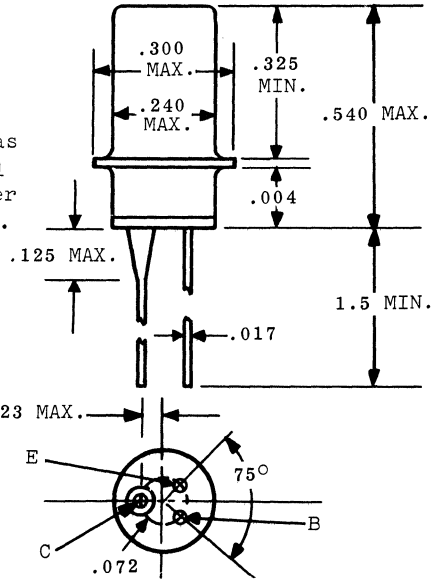
R 46



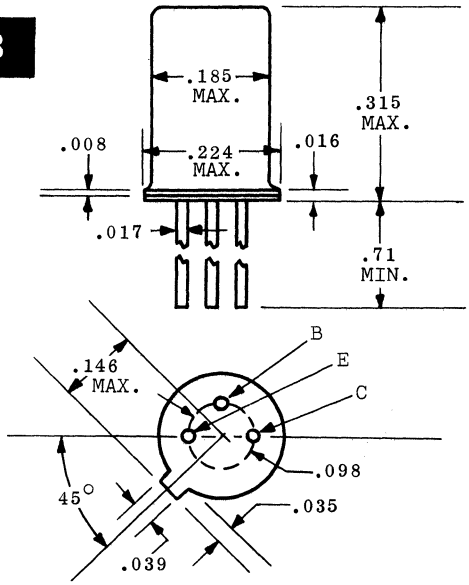
NOTE 1: Lead diameter is controlled in the zone between .050 and .250 from the base seat. Between .250 and end of lead a max. .021 is held.
NOTE 2: Do not attempt to insert a #2-56 stud in excess of .045.

R 47

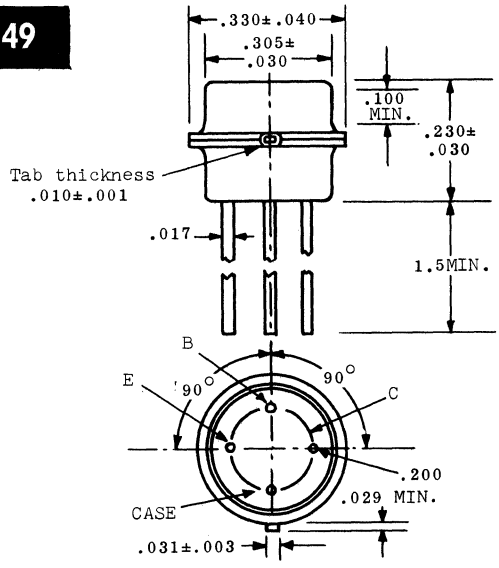
R 47a - Same as R 47 with all leads .017 over whole length.



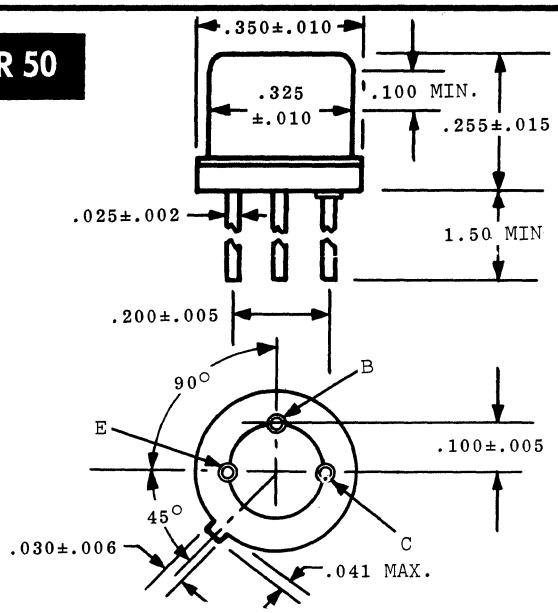
R 48



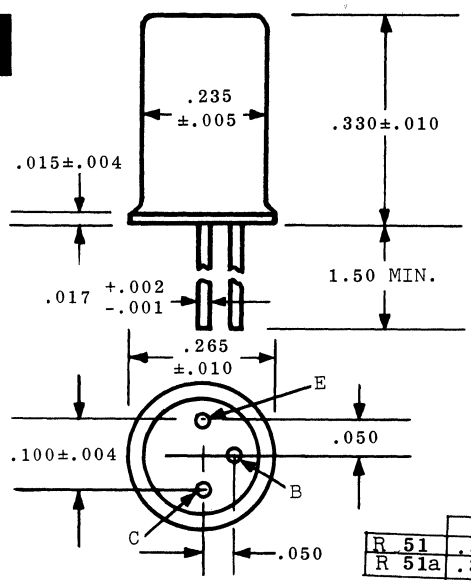
R 49



R 50

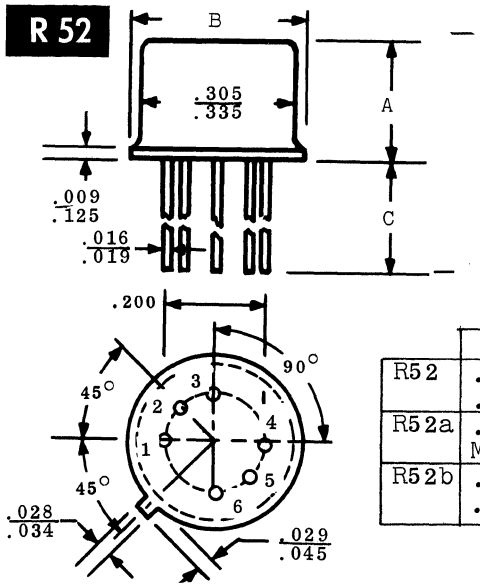


R 51



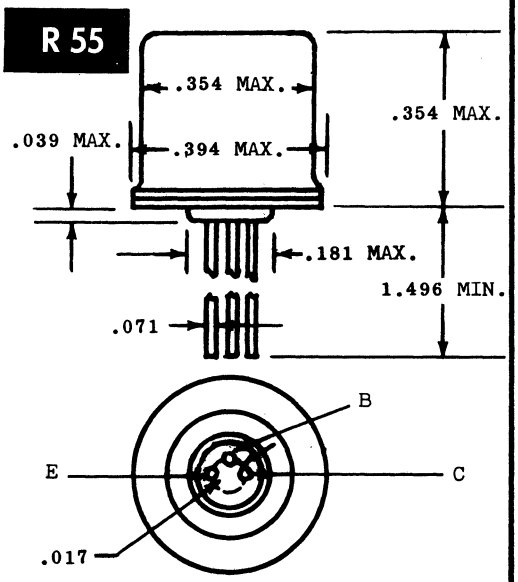
	A
R 51	.340 MAX.
R 51a	.370 MAX.

R 52

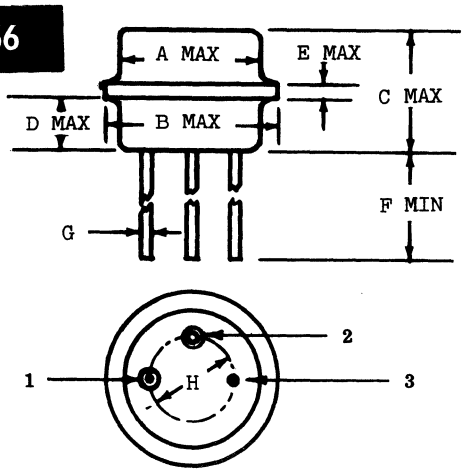


	A	B	C
R52	.150 .260	.335 .370	1.50
R52a	.160 MAX.	.325 MAX.	1.50
R52b	.165 .185	.355 .370	.500

R 55

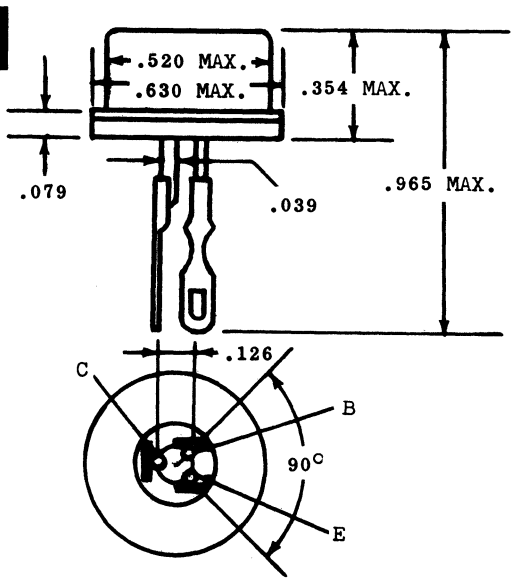


R 56

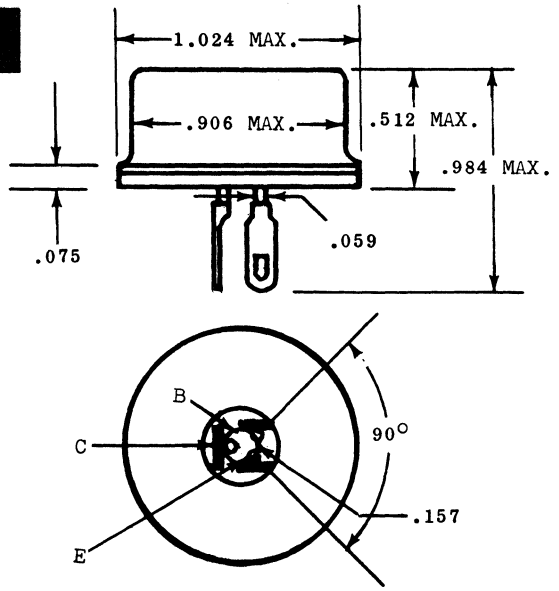


	A	B	C	D	E	F	G	H
R 56	.441	.543	.366	.169	.035	1.378	.020	.276
R 56a	.310	.370	.260	.125		1.500	.017	.200
R 56b	.520	.640	.310			.370	.030	.282

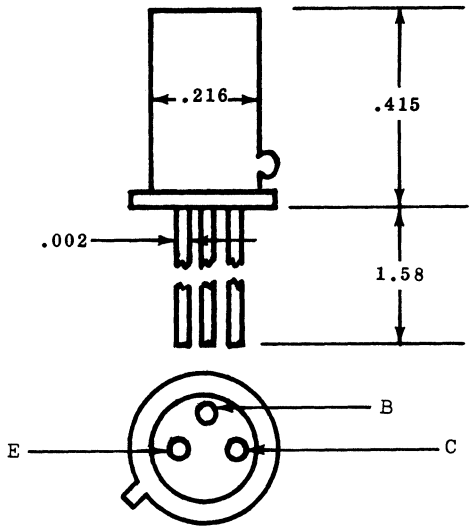
R 57



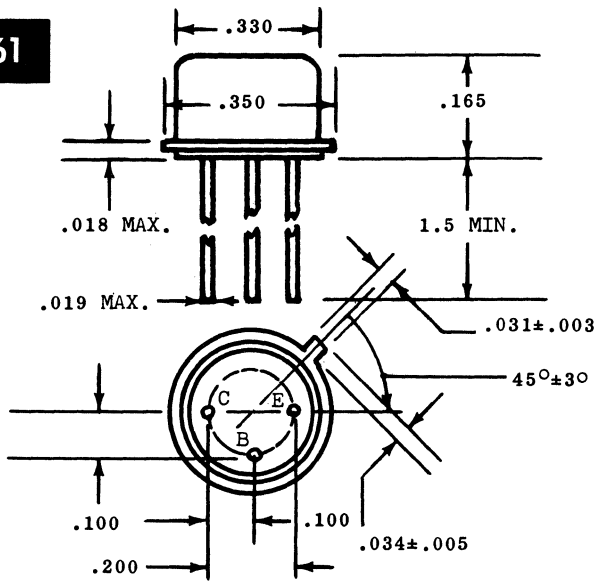
R 58



R 60

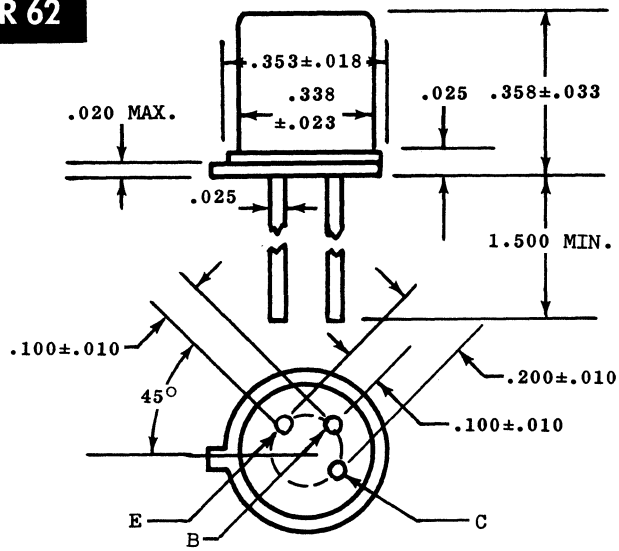


R 61



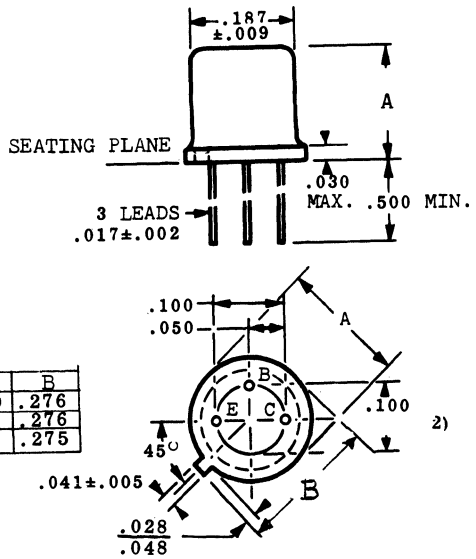
R 62

COLLECTOR IS CONNECTED TO THE CASE



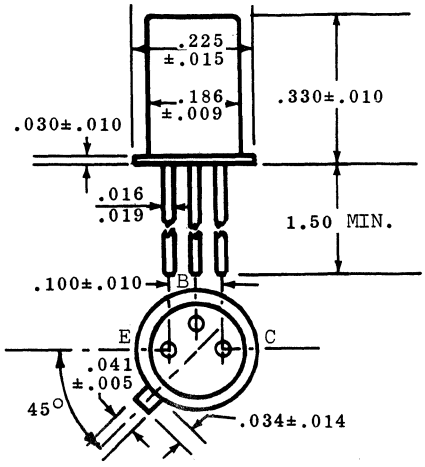
R 64

REVISED SPRING 1969



	A	B
R 64	.210/.100	.276
R 64a	.260 MAX.	.276
R 64b	.208 MAX.	.275

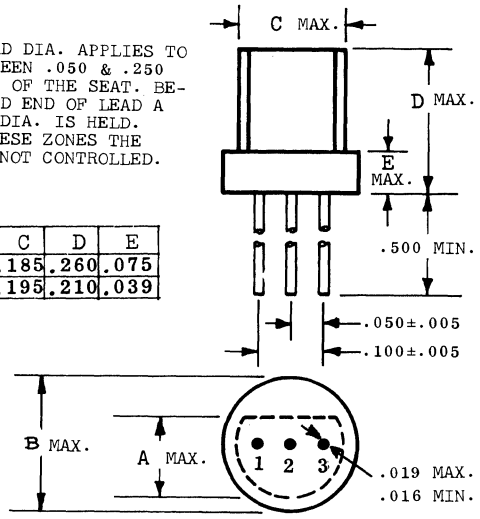
R 65



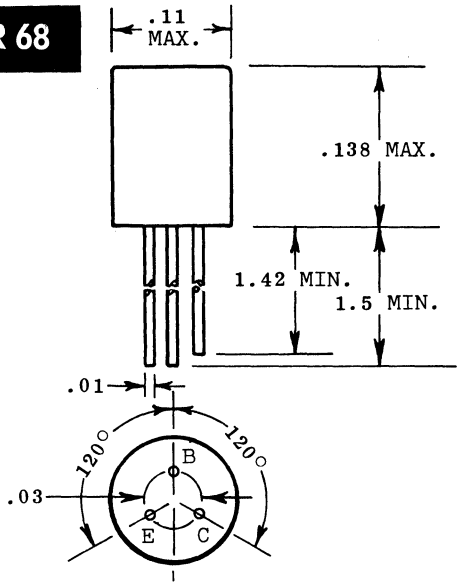
R 67

NOTE: THE LEAD DIA. APPLIES TO THE ZONE BETWEEN .050 & .250 FROM THE BASE OF THE SEAT. BETWEEN .250 AND END OF LEAD A MAX. OF .021 DIA. IS HELD. OUTSIDE OF THESE ZONES THE LEAD DIA. IS NOT CONTROLLED.

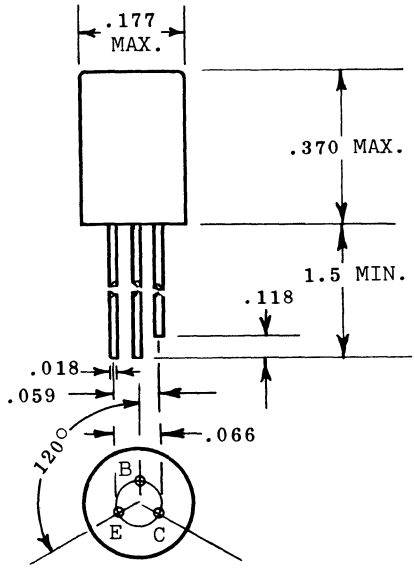
	A	B	C	D	E
RO67	.135	.205	.185	.260	.075
RO67a	.178	.238	.195	.210	.039



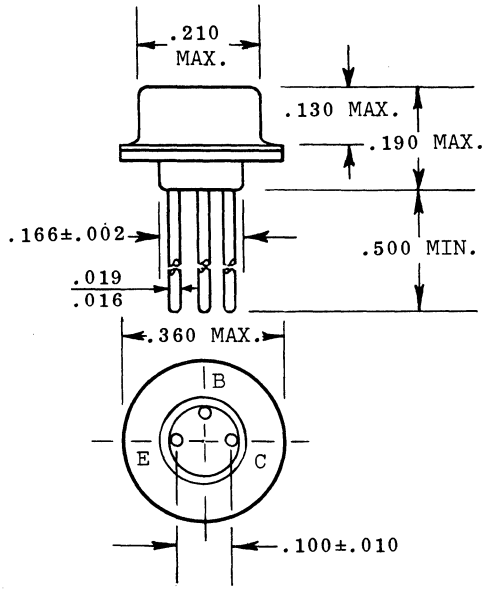
R 68



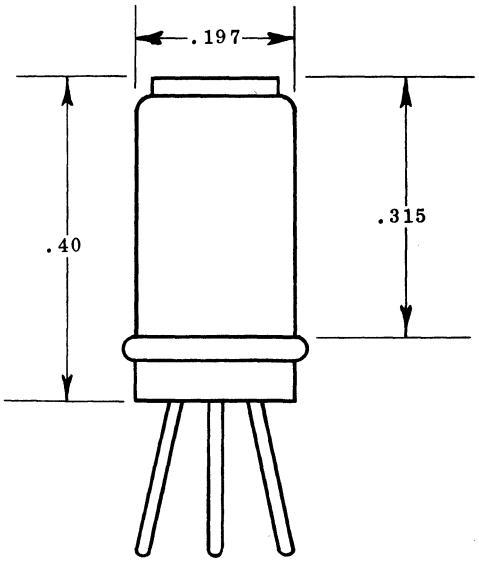
R 69



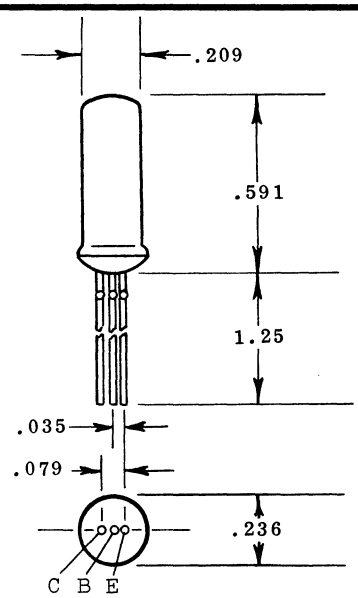
R 70



R 71

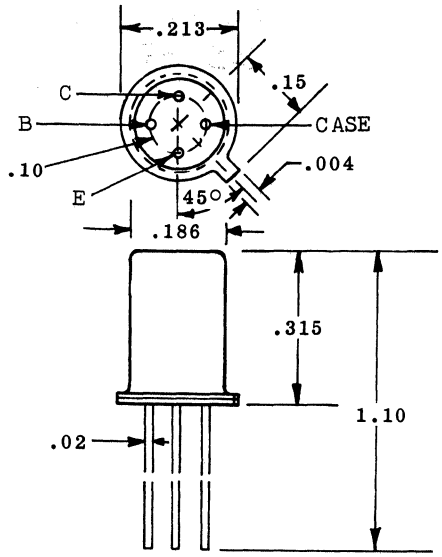


R 72

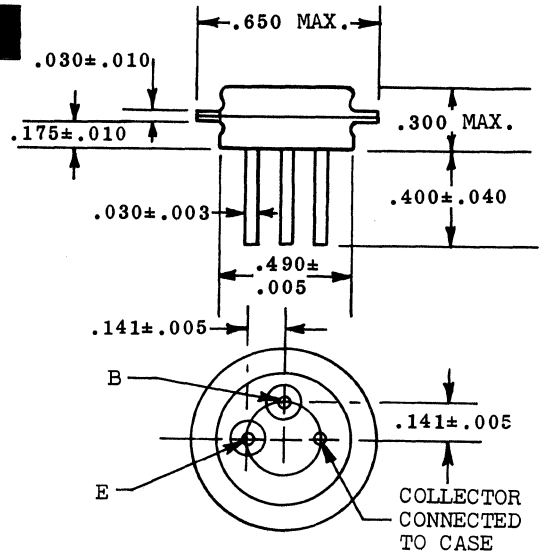


15. OUTLINE DRAWINGS

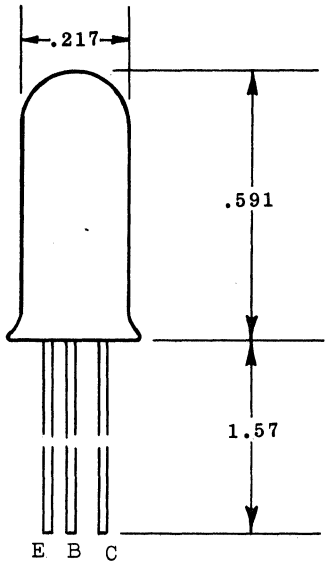
R 73



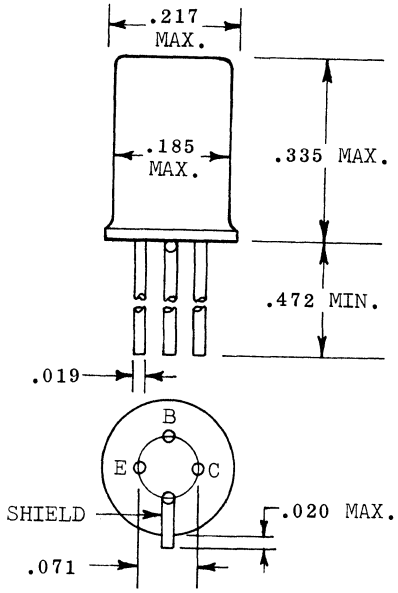
R 74



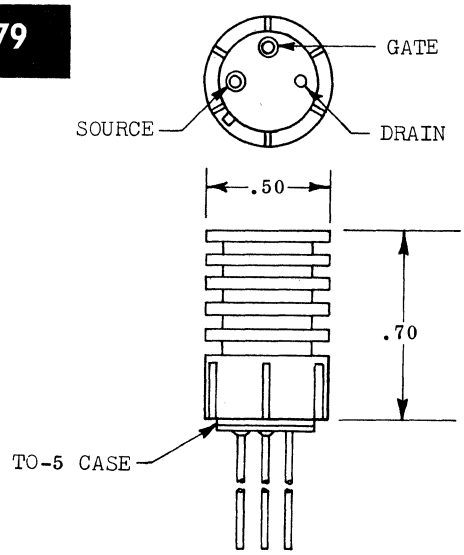
R 76



R 77

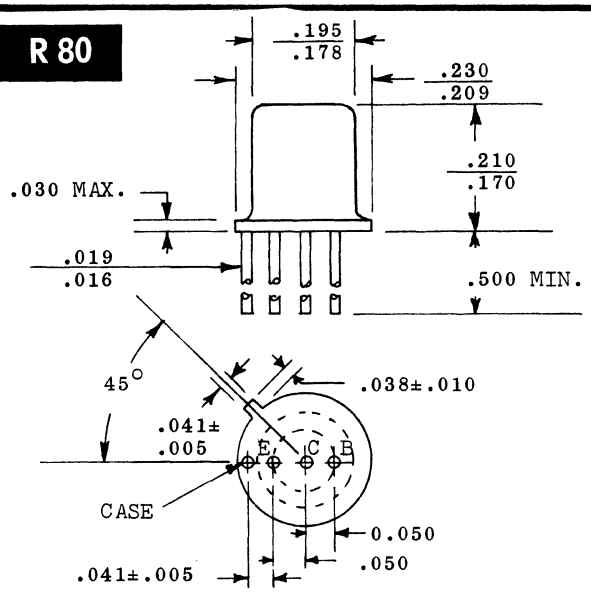


R 79



15. OUTLINE DRAWINGS

R 80



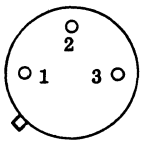
R 81

REVISED FALL 1969

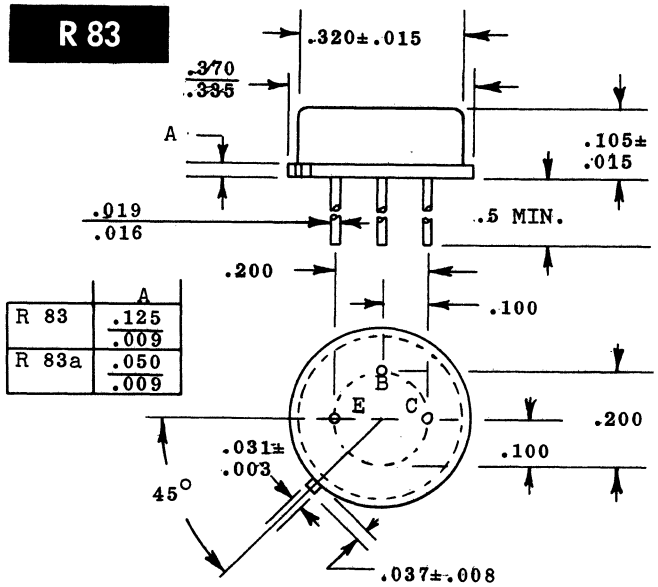
	A	B	C	D	E	F	G
R81	.305 .330	.240 .260	1.50	.370 .335	.028 .034	.029 .045	.200
R81a	.335 .275	.200 .260	.500	.370 .335	.028 .034	.029 .045	.200
R81b	.305 .335	.150 .260	1.50	.370 .335	.028 .034	.029 .045	.200
R81c	.310 .340	.240 .390	1.50	.370 .335	.028 .034	.029 .045	.200
R81d	.320 .330	.240 .260	.500	.370 .335	.028 .034	.029 .045	.200
R81e	.305 .335	.160 .180	.500	.370 .335	.028 .034	.029 .045	.200
R81f	.330	.255	1.00	.370 .335	.028 .034	.029 .045	.200
R81g	.310 .330	.240 .260	1.00	.370 .335	.028 .034	.029 .045	.200
R81h	.305 .335	.240 .260	.500	.370 .335	.028 .034	.029 .045	.200
R81j	.305 .335	.240 .270	1.50	.370 .335	.028 .034	.029 .045	.200
R81k	.181 .193	.065 .085	1.50 MIN	.210 .230	.041	.042	.100

R 82

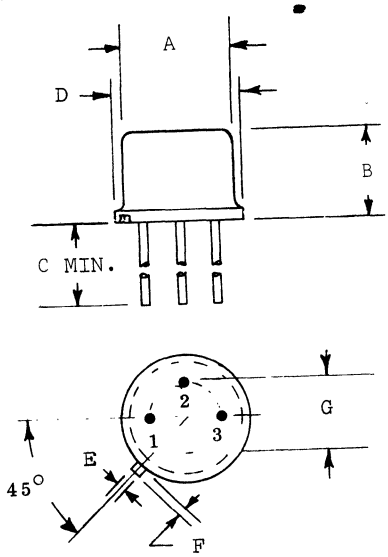
SAME AS TO5 EXCEPT FOR LEAD DESIGNATION



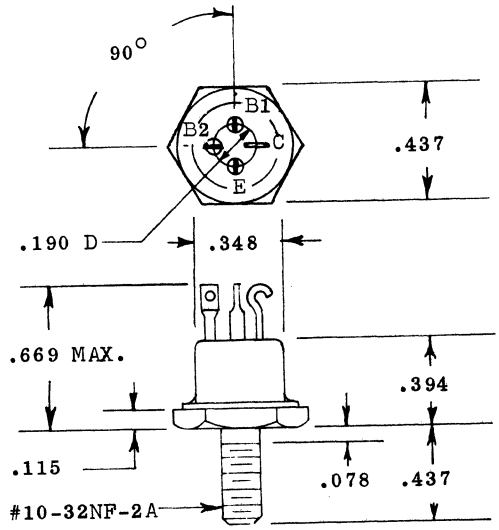
R 83



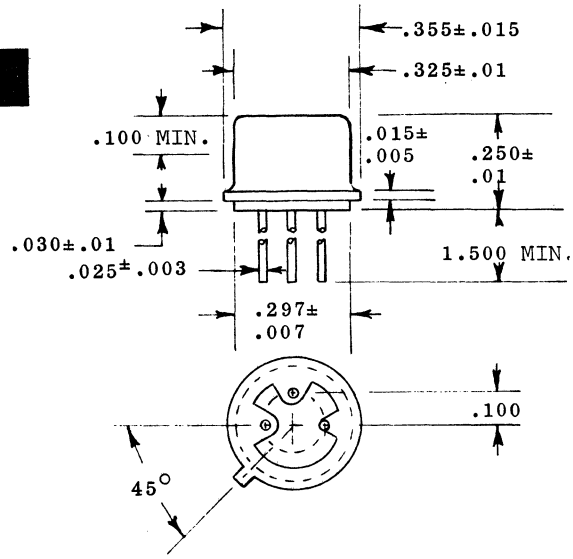
	A
R 83	.125 .009
R 83a	.050 .009



R 84

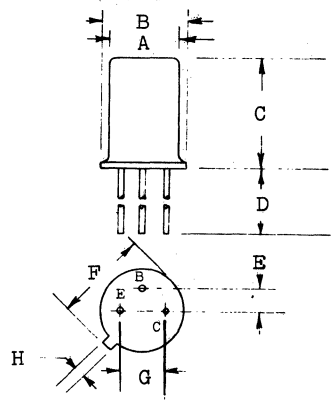


R 85



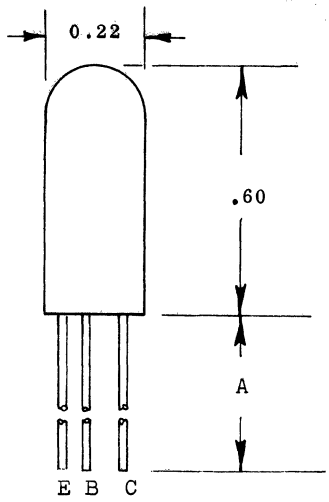
R 86

REVISED FALL 1969



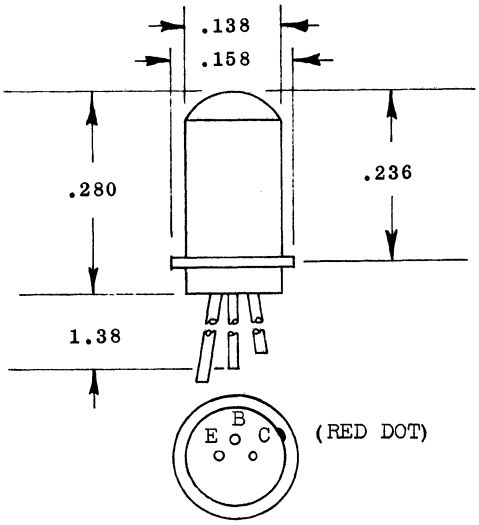
	A	B	C	D	E	F	G	H
R86	.200 MAX	.228 MAX	.335 MAX	.492 MIN	.050	.280 MAX	.100 MAX	.046 MAX
R86a	.334 MAX	.377 MAX	.263 MAX	.905 MIN	.098		.196	.033

R 87

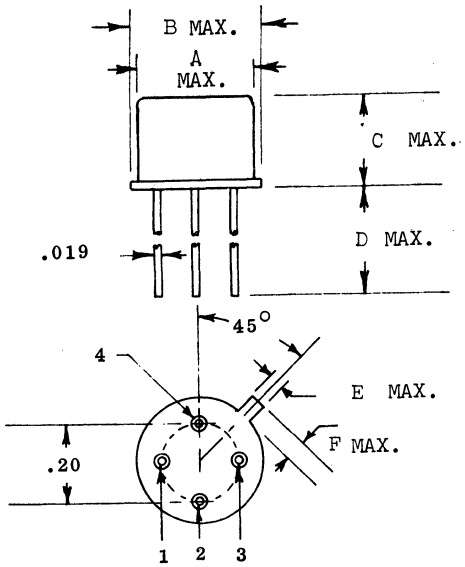


	A
R 87	1.5
R 87a	.80

R 88

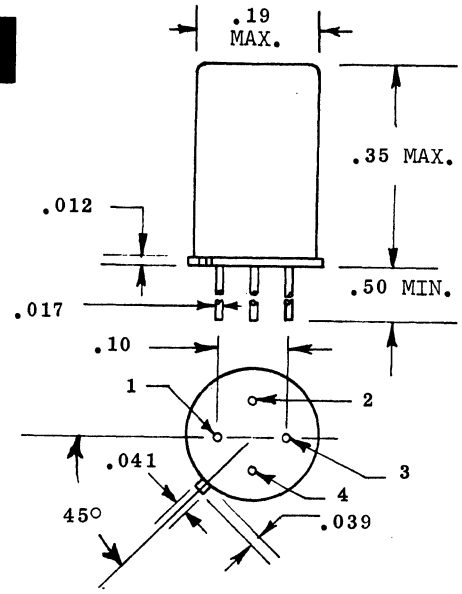


R 89

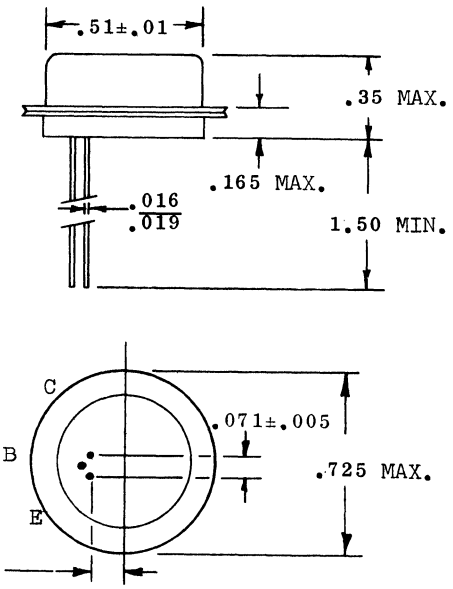


	A	B	C	D	E	F
R 89	.335	.370	.260	.591	.034	.040
R 89a	.325	.360	.170	1.50	.031	.029
R 89b	.330	.370	.260	.500	.034	.035
R 89c	.335	.370	.210	1.50 MIN	.033	.029 MIN

R 90

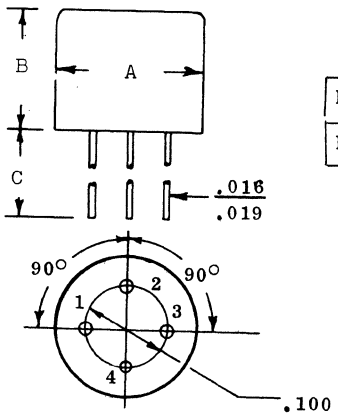


R 91



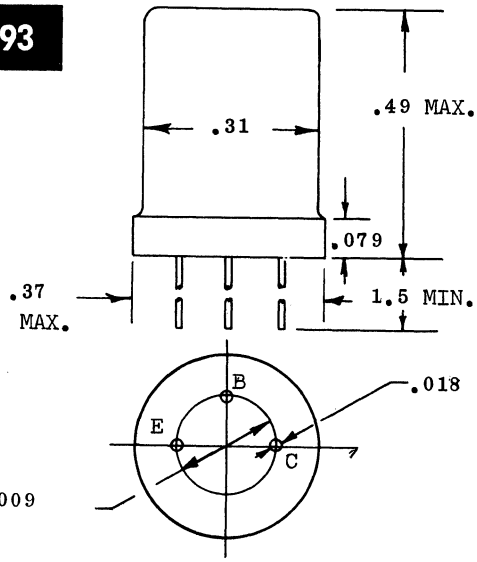
R 92

REVISED SPRING 1969

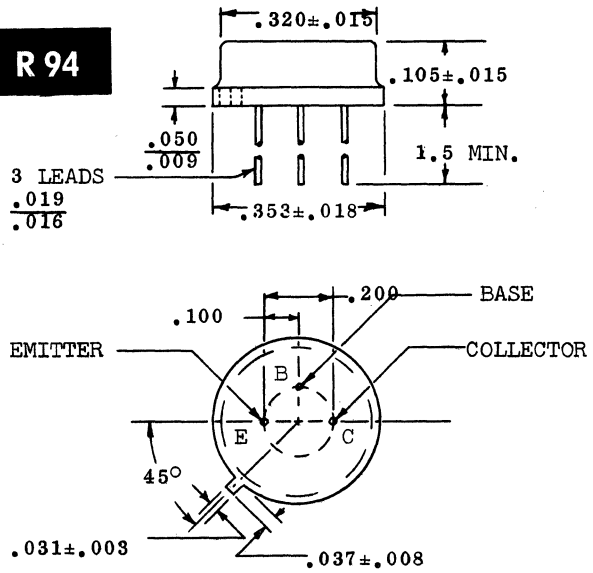


	A	B	C
R 92	.230 / .209	.210 / .170	.50 MIN.
R 92b	.240 MAX.	.240 MAX.	1.5 MAX.

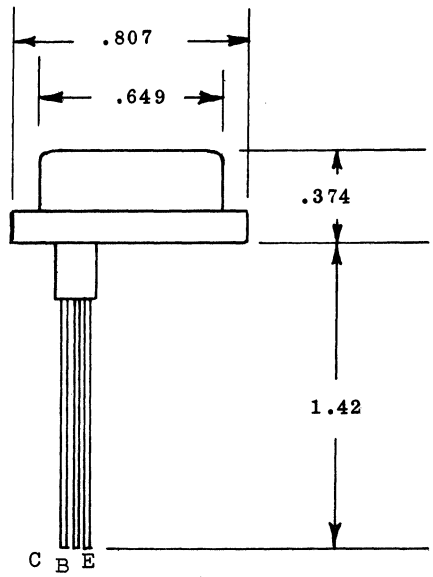
R 93



R 94



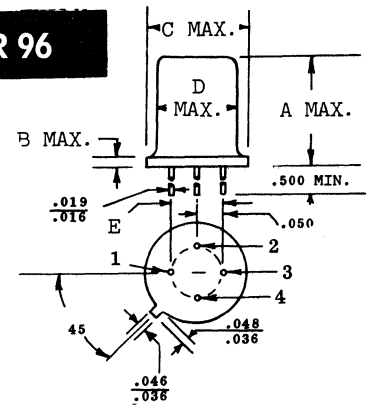
R 95



	Sleeving Color
E	Grn
B	Yel
C	Bare

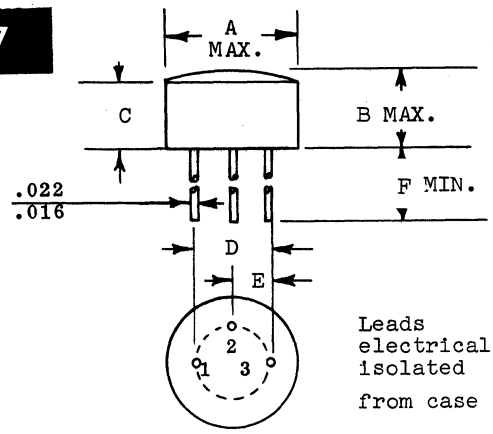
15. OUTLINE DRAWINGS

R 96



	A	B	C	D	E
R 96	.346	.030	.230	.195	.100
R 96a	.085	.040	.230	.195	.100
R 96b	.183		.362	.336	.200
R 96c	.085		.212	.186	.100
R 96d	.210	.030	.230	.195	.100

R 97



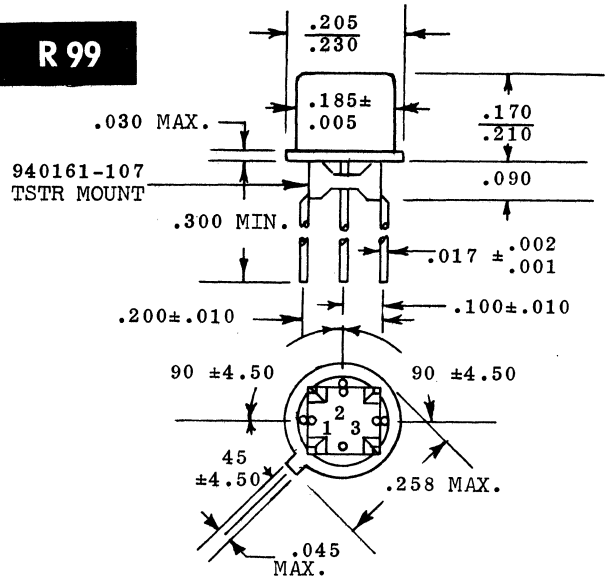
Leads electrically isolated from case

	A	B	C	D	E	F
R 97	.330	.250		.200	.100	.400
R 97a	.215	.250	.115 .105	.100	.050	.400
R 97b	.210	.200		.100	.050	.500
R 97c	.215	.200		.100	.050	
R 97d	.215	.250		.100	.050	.400

R 98

Same as TO18 except without tab

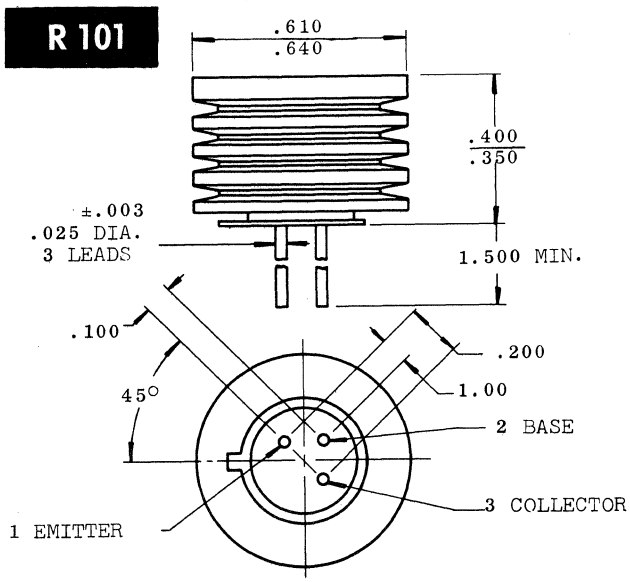
R 99



R 100

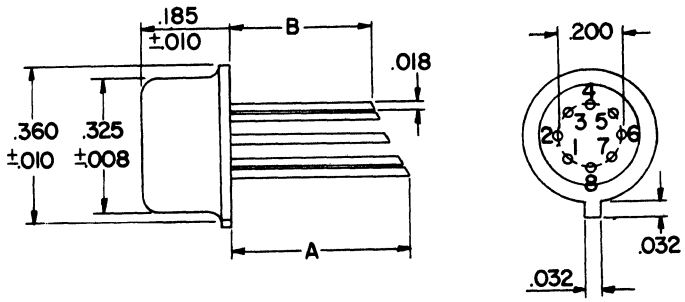
Same as TO5 except for lead length of .300 MIN.

R 101

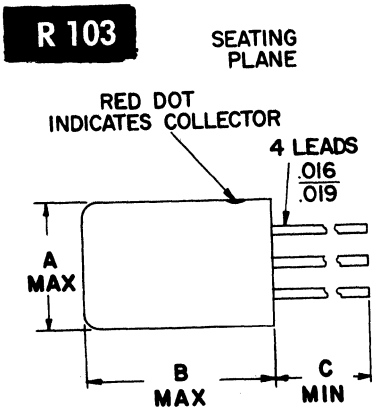


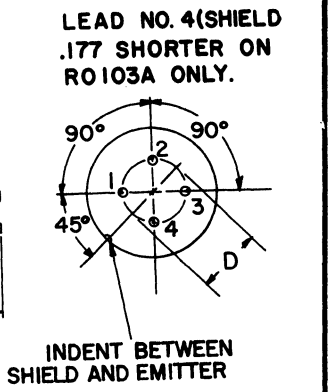
R 102

	A	B
102A	.60	.25
102B	1.5	1.5



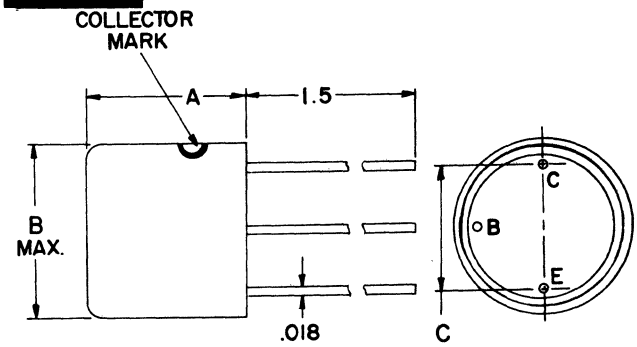
R 103





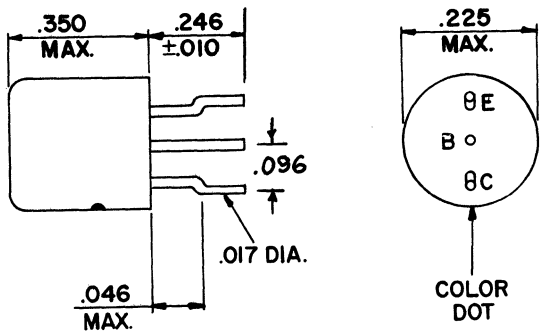
	A	B	C	D
R 103	.240	.410	1.5	.100
R 103A	.236	.236	.689	.100
R 103B	.236	.236	.532	.071

R 107

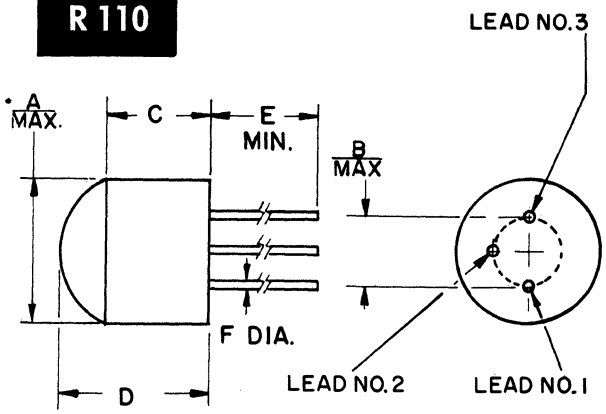


	A	B	C
R 107a	.260	.342	.192
R 107b	.362	.342	.192
R 107c	.240	.240	.070

R 108

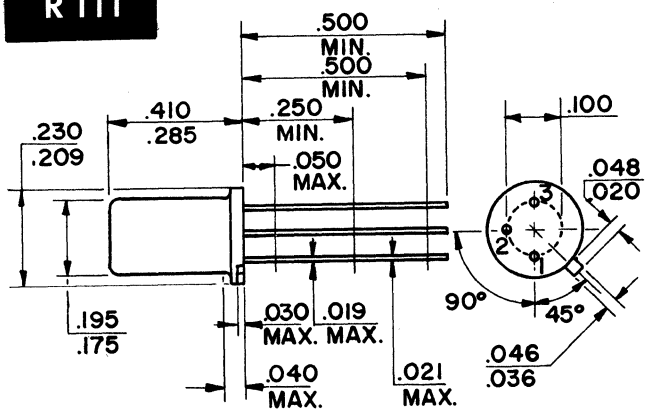


R 110

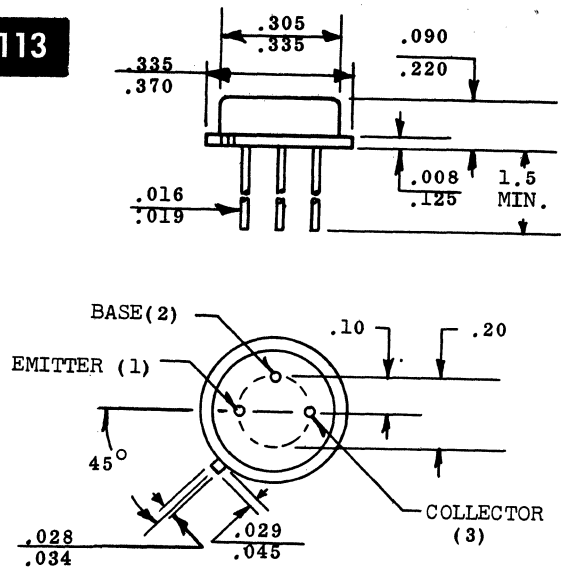


	A	B	C	D	E	F
R 110	.210	.100	.120 / .100	.250 / .140	.400	.022 / .016
R 110 A	.330	.200	.120 / .100	.250 / .140	.400	.022 / .016
R 110 B	.250	.100		.250	.500	.019 / .016

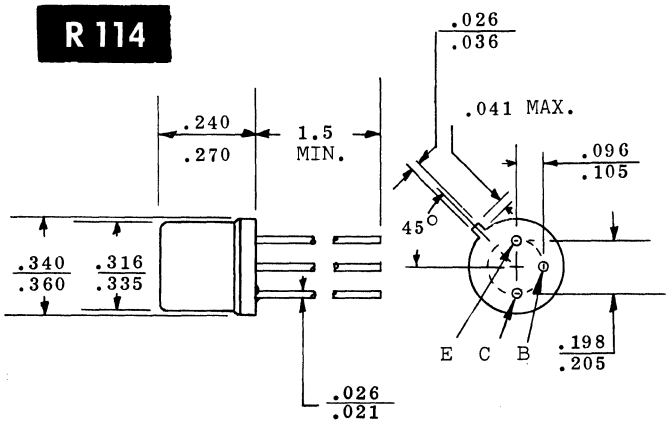
R 111



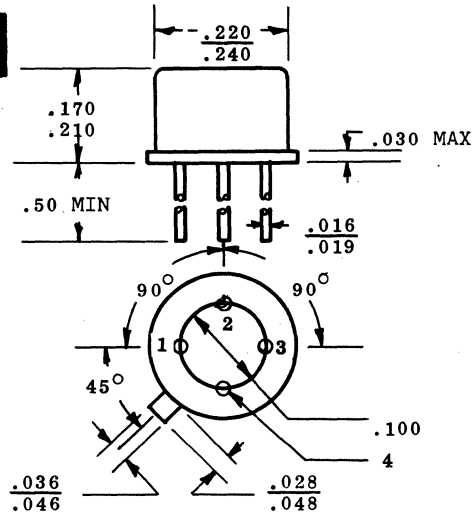
R 113



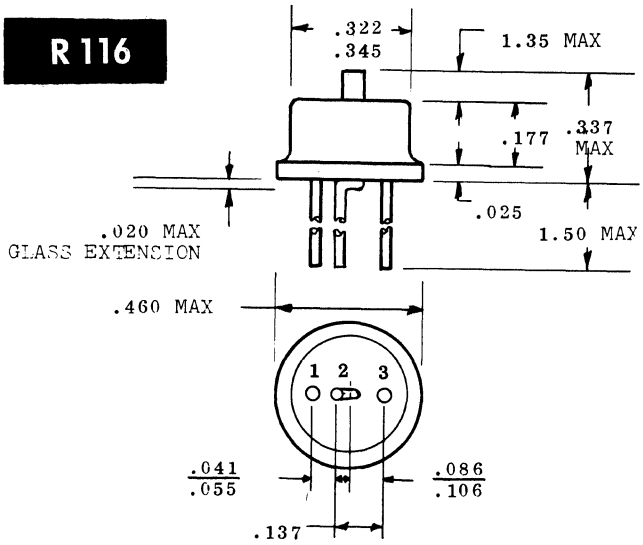
R 114



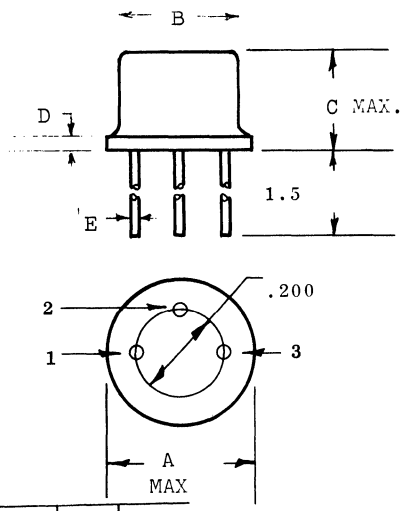
R 115



R 116

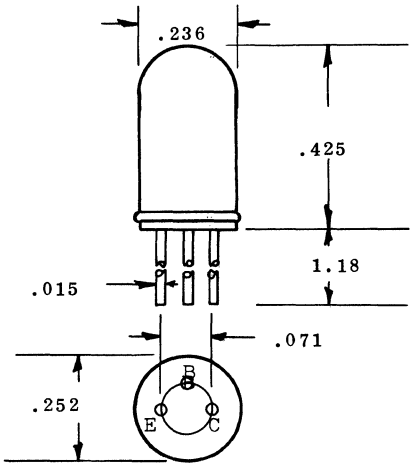


R 117

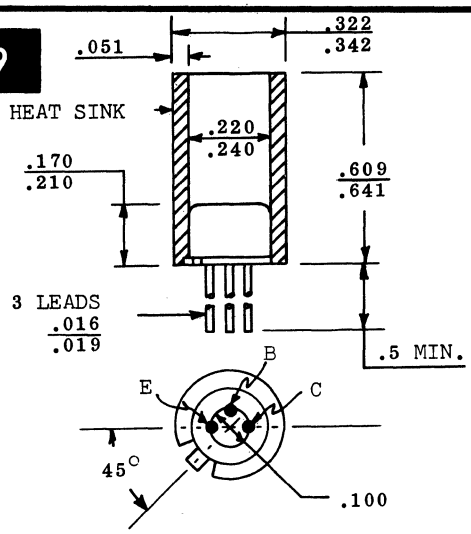


	A	B	C	D	E
R 117	.200		.410		
R 117a	.370	.335	.260	.125	.019

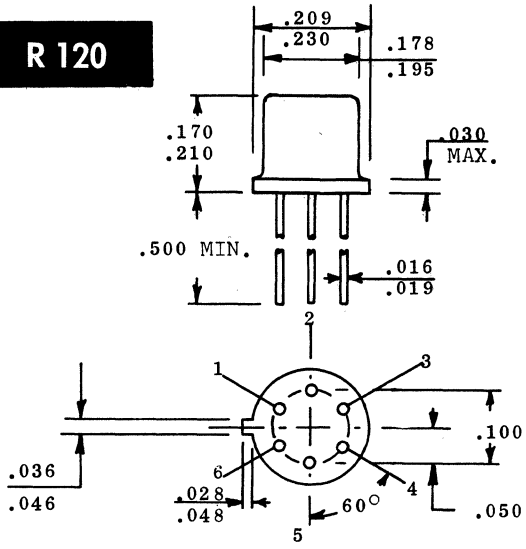
R 118



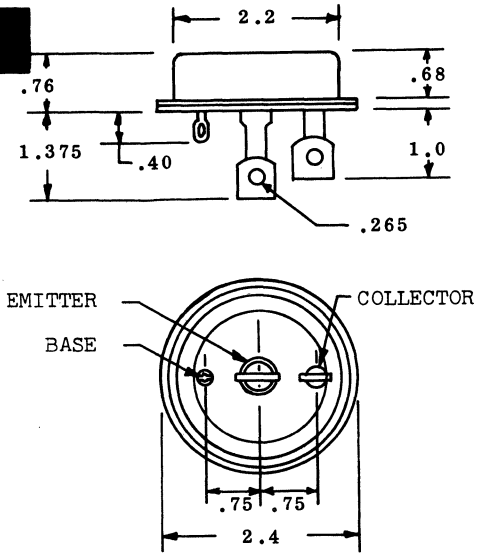
R 119



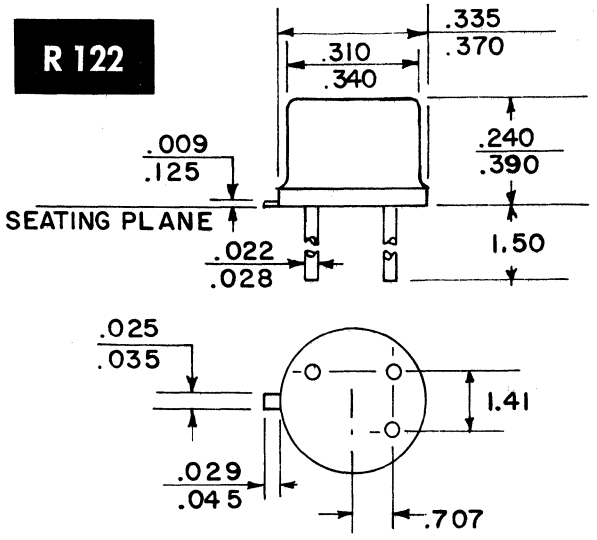
R 120



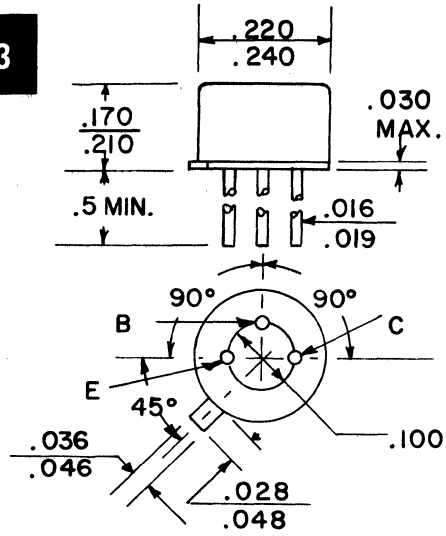
R 121



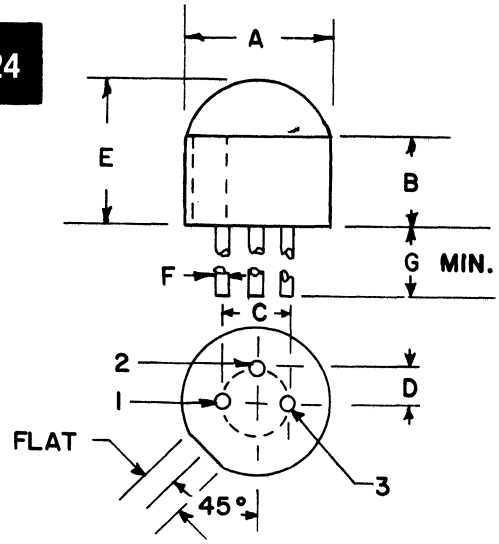
R 122



R 123

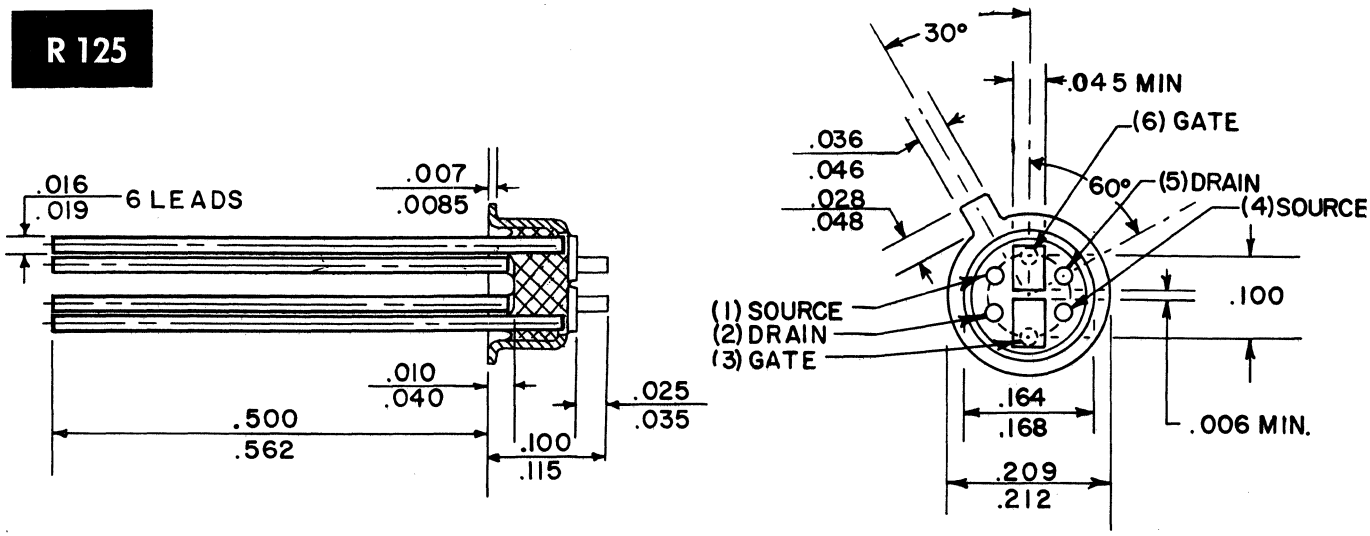


R 124

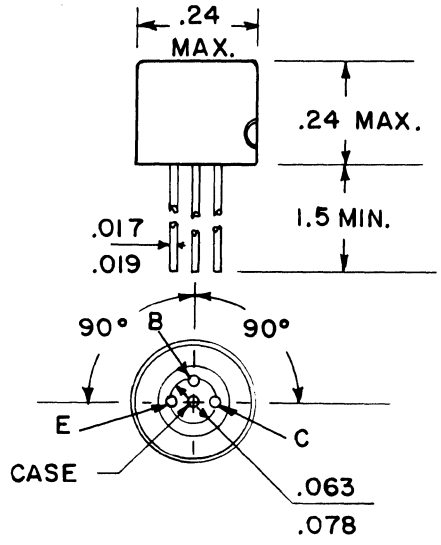


	A	B	C	D	E	F	G	FLAT
R 124 R 124a	.215 .185	.120 .100	.100	.050	.250	.016 .022	.400	.080
R 124b	.330	.115 .105	.200	.100	.250	.016 .022	.400	.090
R 124c	.325 MAX.		.200	.100	.240 MAX.	.016 .018	.500	

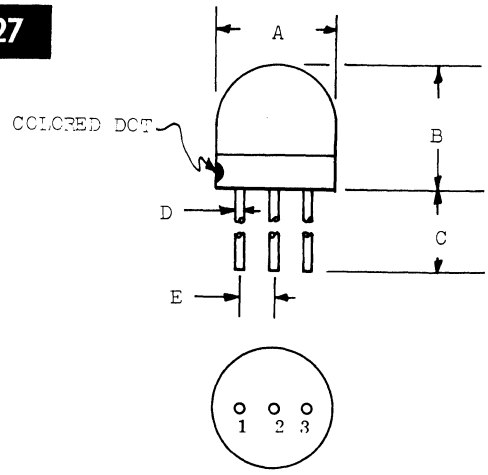
R 125



R 126

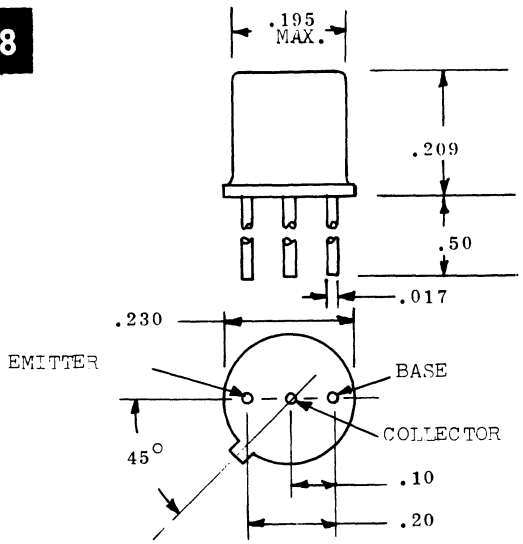


R 127

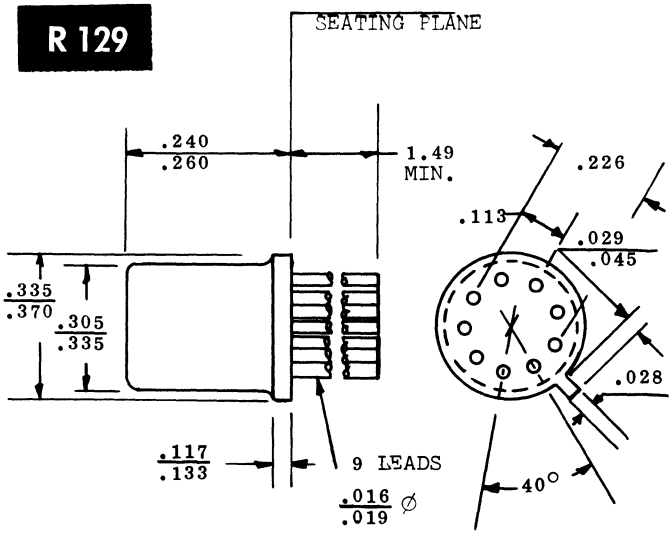


	A	B	C	D	E
R127	.193	.197	.472	.016	.051
R127a	.200	.175	.500	.018	.050

R 128



R 129

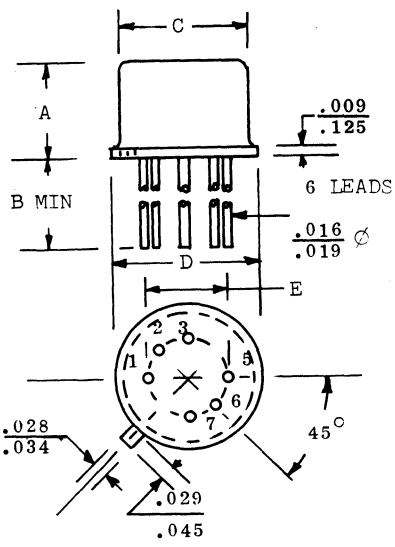


R 130

SUFFIX	LEAD CONFIGURATION								OUTLINE
	1	2	3	4	5	6	7	8	
	C	B	E	OMIT	E	B	C	OMIT	TO99
a	NPN				PNP				
b	NPN				NPN				
c	PNP				PNP				

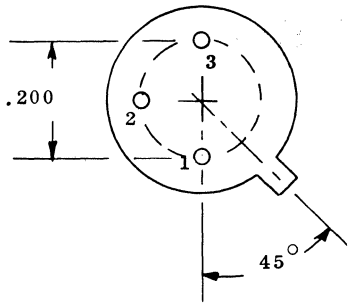
R 131

REVISED SPRING 1969



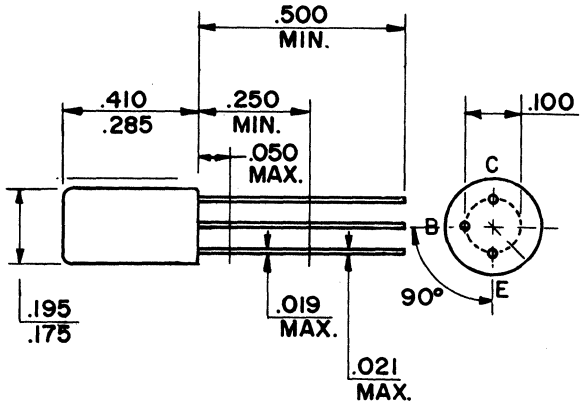
	A	B	C	D	E
R 131	.240 / .260	1.50	.305 / .335	.335 / .370	.200
R 131a	.150 / .180	1.50	.305 / .335	.335 / .370	.200
R 131b	.150 / .280		.305 / .335	.335 / .370	.200
R 131c	.140 / .260	.500	.305 / .335	.335 / .370	.200
R 131d	.140 / .260	.150	.305 / .335	.335 / .370	.200
R 131e	.170 / .210	.500	.178 / .195	.209 / .230	.100

R 133

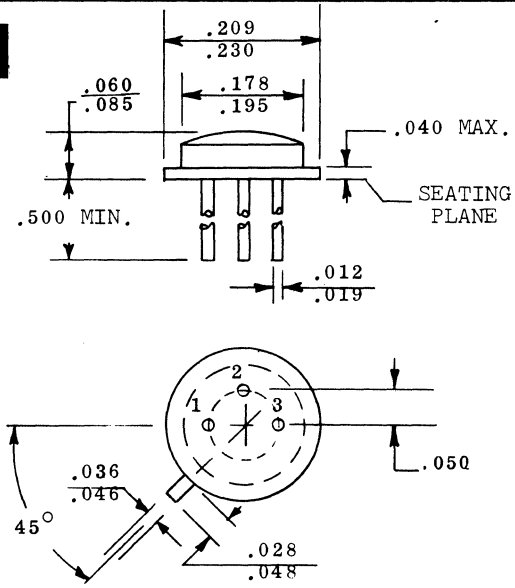


SAME AS TO5 WITH EXCEPTION

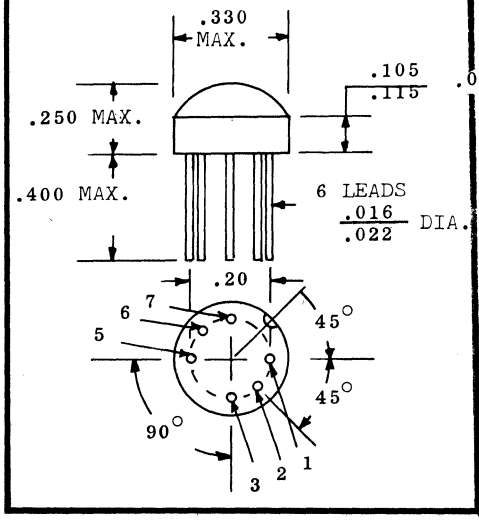
R 134



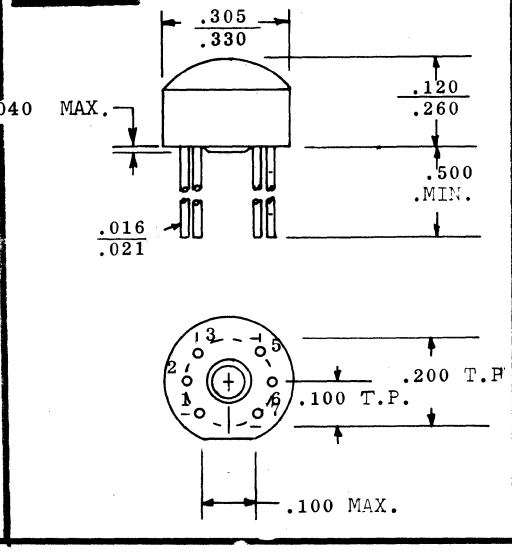
R 135



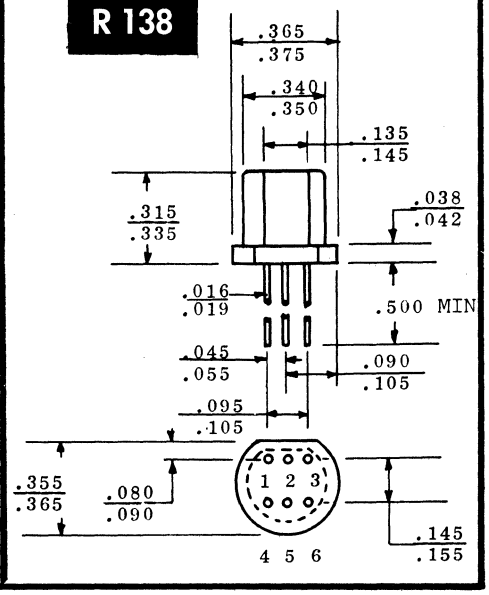
R 136



R 137



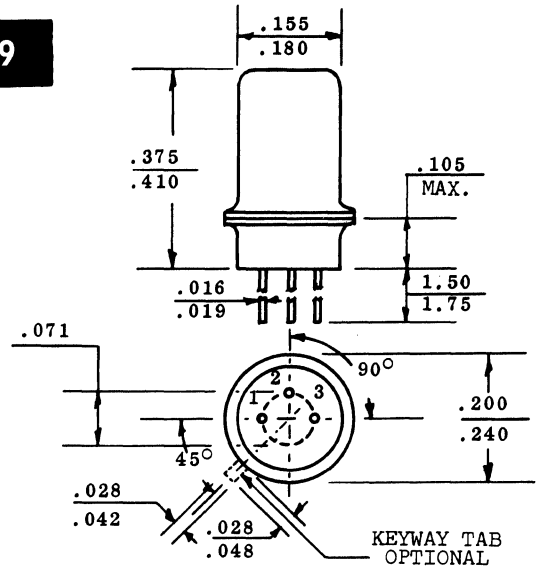
R 138



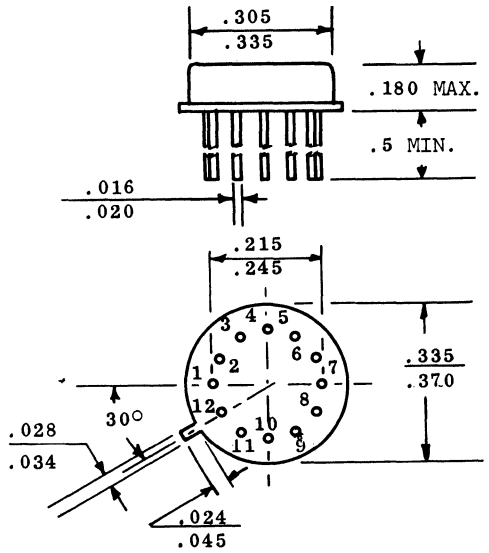
15. OUTLINE DRAWINGS

IN ORDER OF CASE NUMBER

R 139

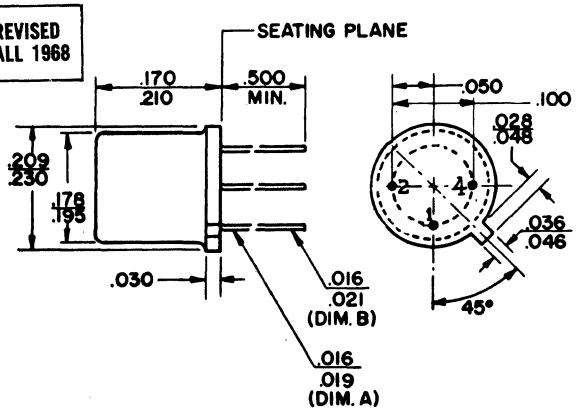


R 140

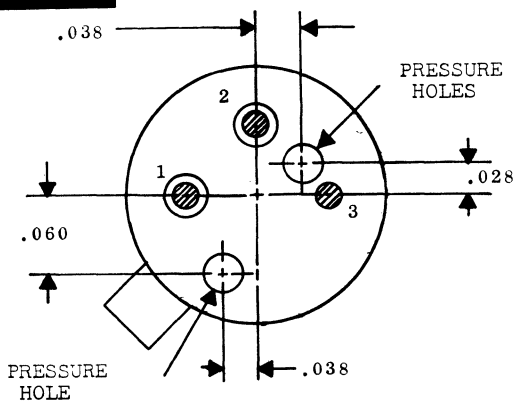


R 141

REVISED FALL 1968

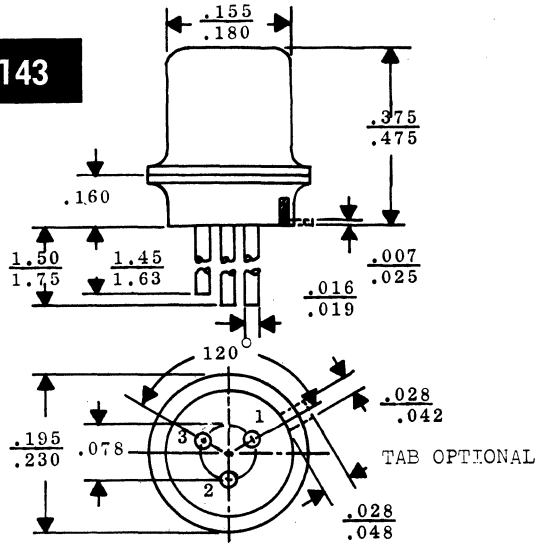


R 142

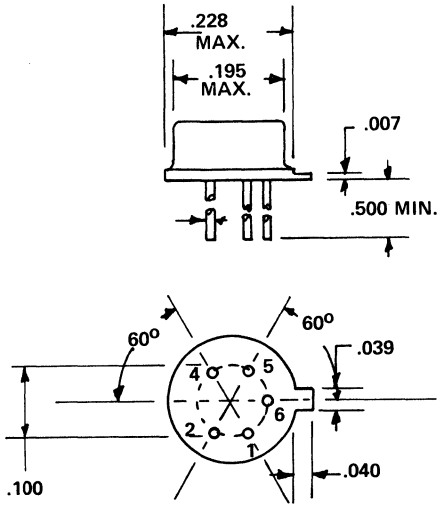


SAMES AS TO46 EXCEPT FOR PRESSURE HOLES

R 143



R144

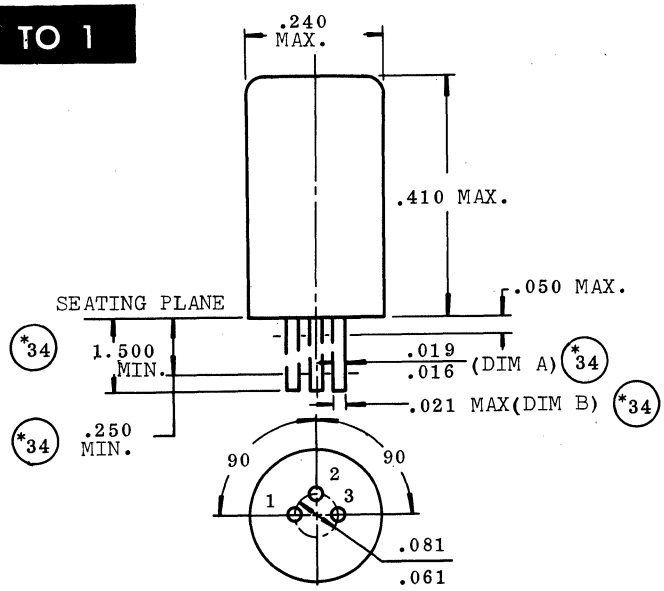


ALL DIMENSIONS IN INCHES

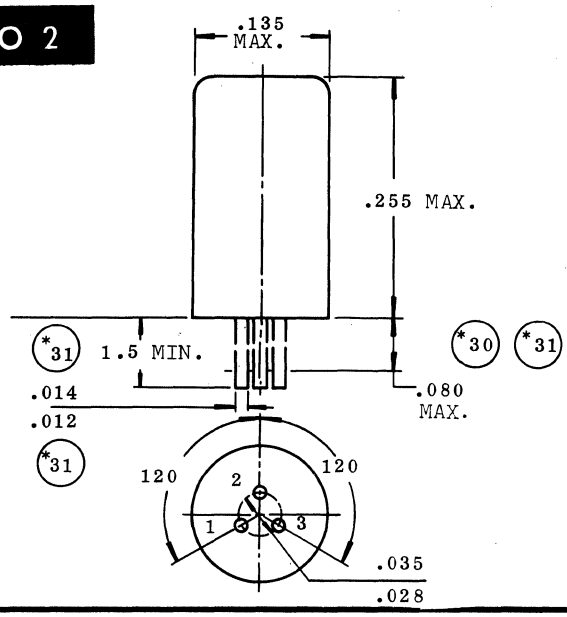
15. OUTLINE DRAWINGS

IN ORDER OF CASE NUMBER

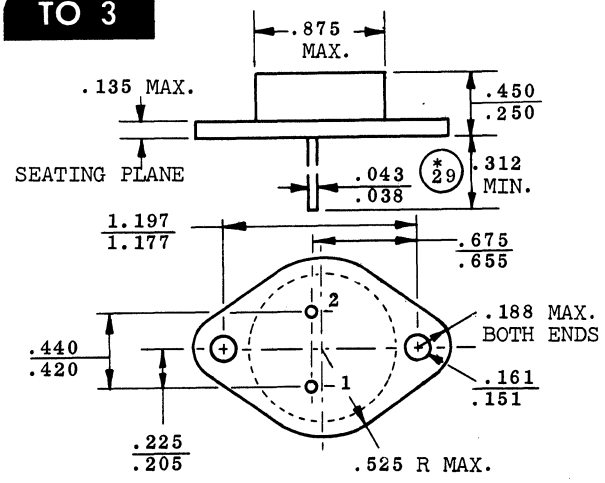
TO 1



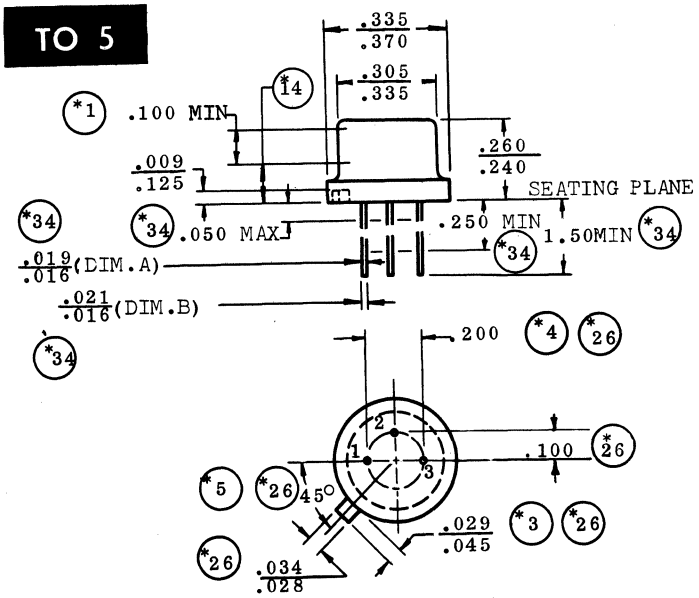
TO 2



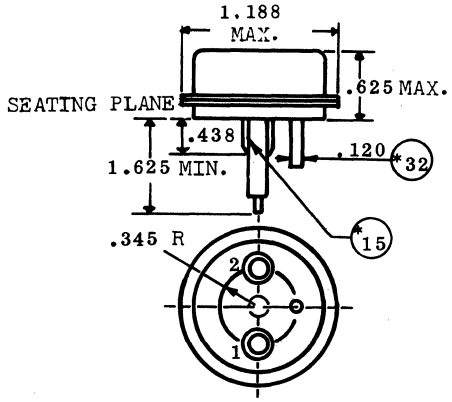
TO 3



TO 5



TO 6

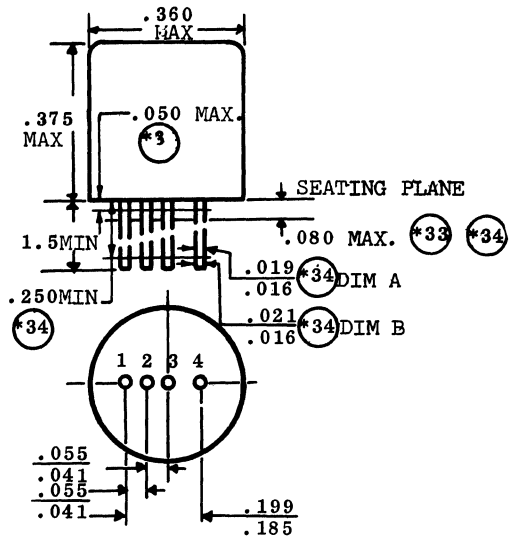


(*) INDICATES NOTE NUMBER AT END OF DRAWING SECTION

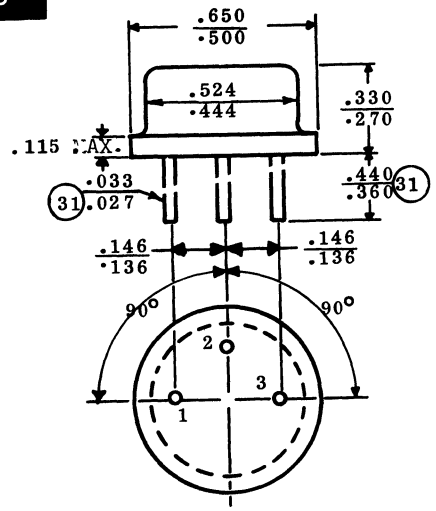
ALL DIMENSIONS IN INCHES

15. OUTLINE DRAWINGS

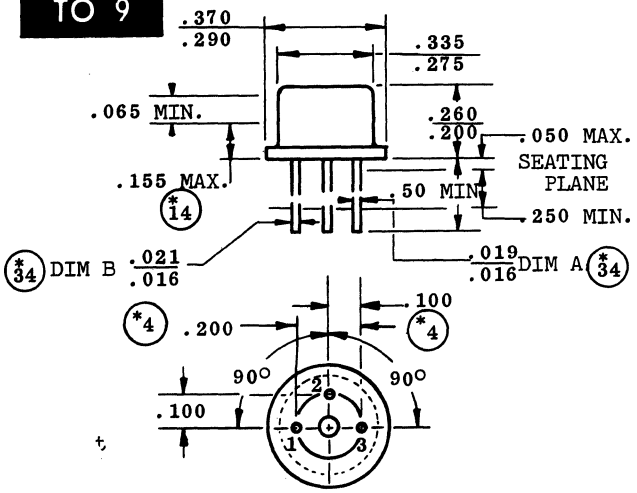
TO 7



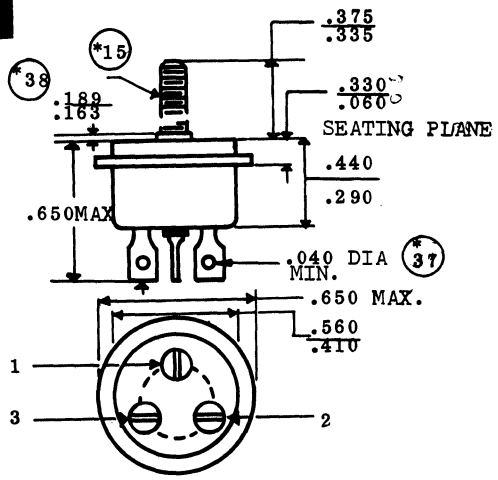
TO 8



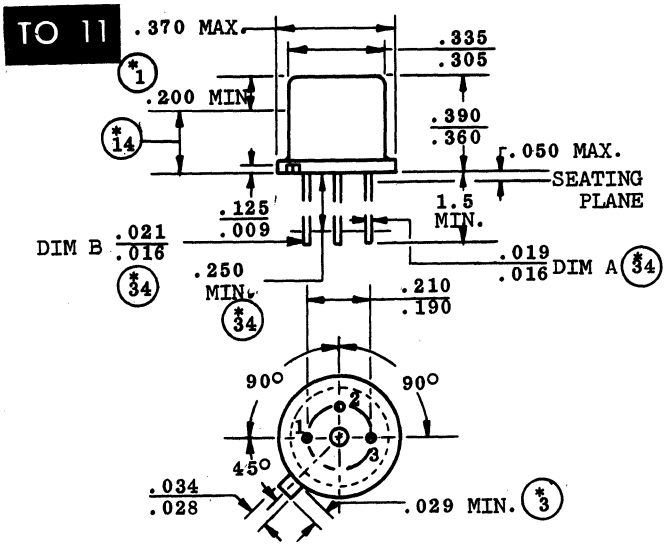
TO 9



TO 10



TO 11

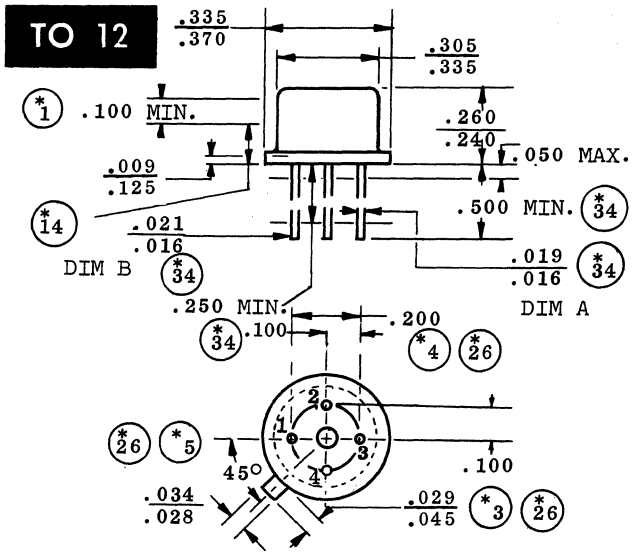


(*) INDICATES NOTE NUMBER AT END OF DRAWING SECTION

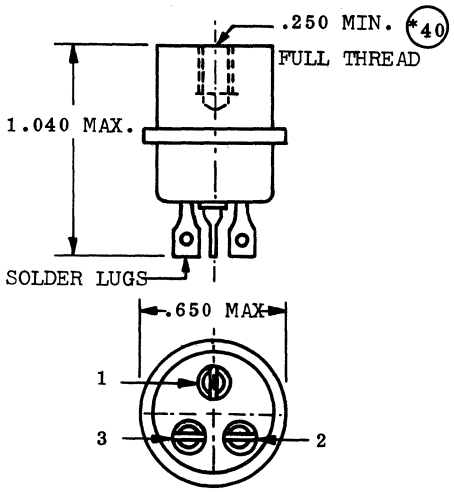
ALL DIMENSIONS IN INCHES

15. OUTLINE DRAWINGS

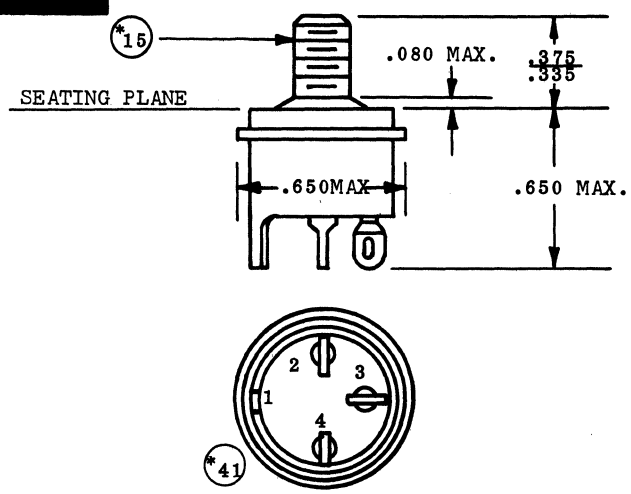
TO 12



TO 13



TO 14



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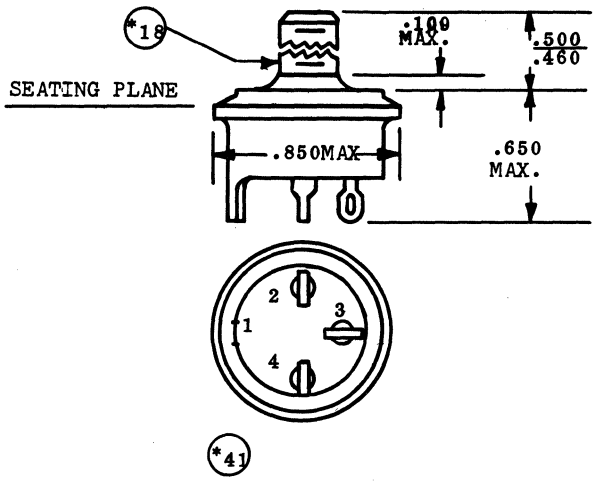
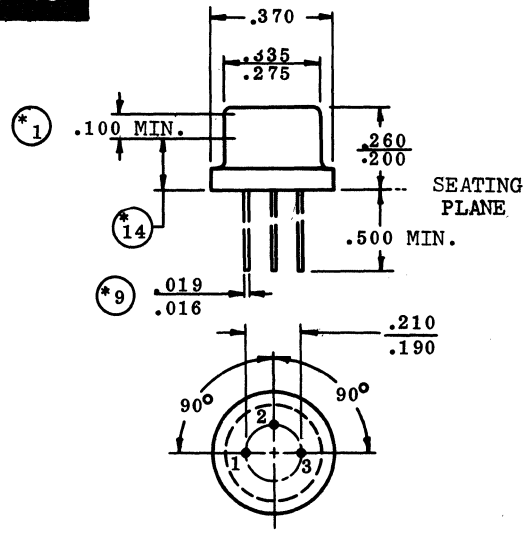


TO 16

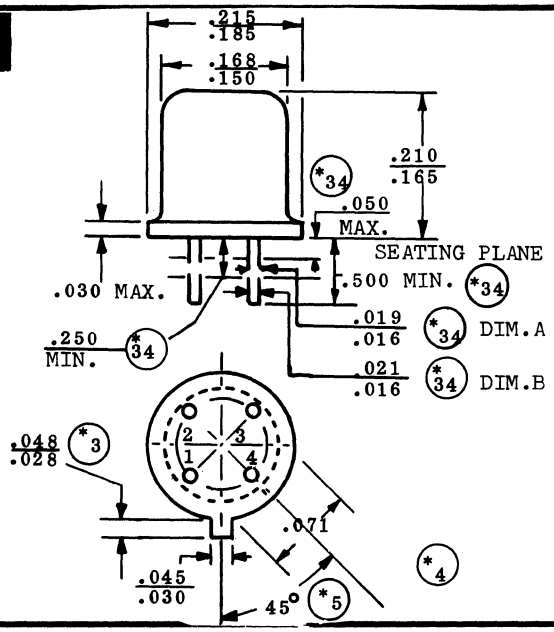


(*) INDICATES NOTE NUMBER AT END OF DRAWING SECTION

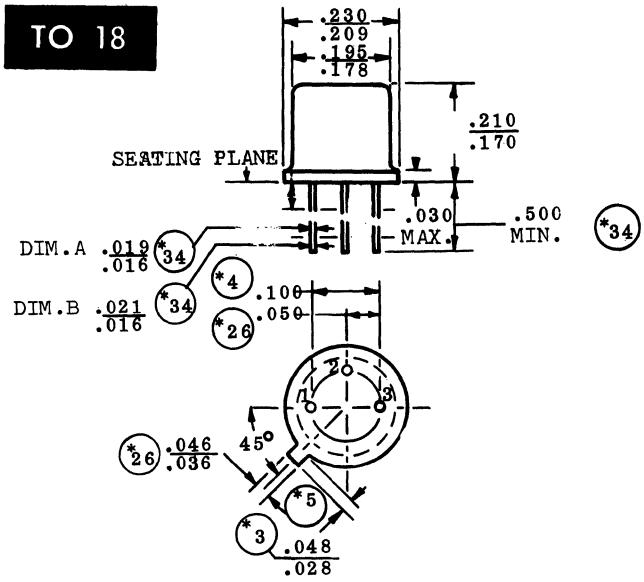
ALL DIMENSIONS IN INCHES

15. OUTLINE DRAWINGS

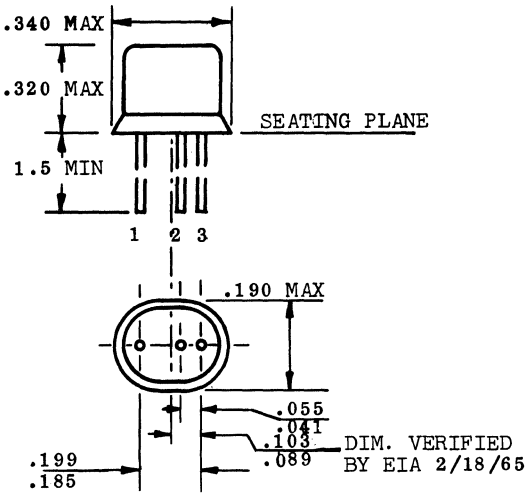
TO 17



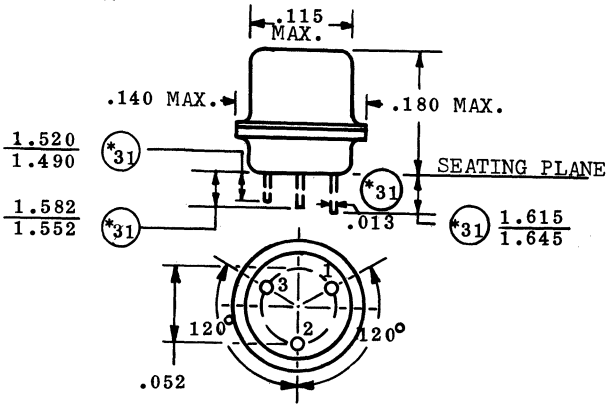
TO 18



TO 22



TO 23



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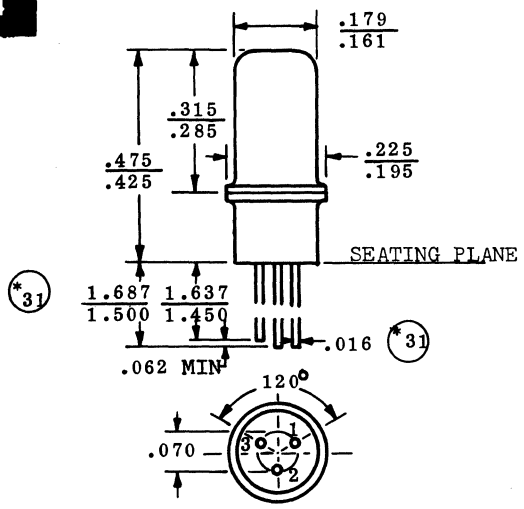
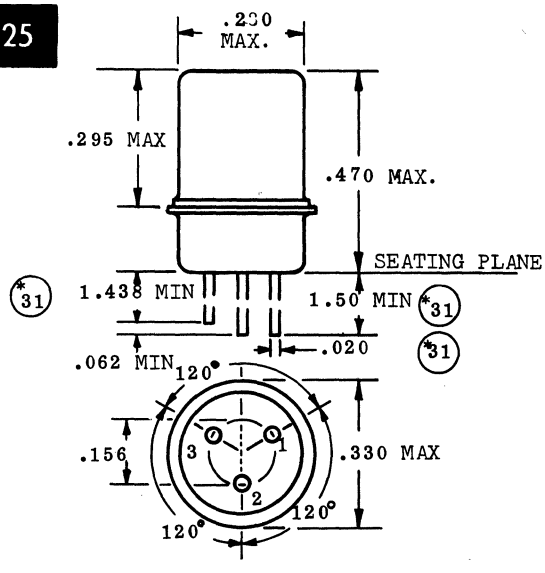


TO 25



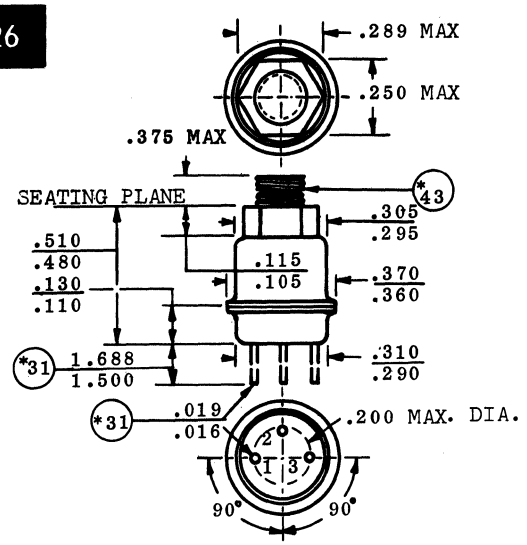
(*) INDICATES NOTE NUMBER AT END OF DRAWING SECTION

ALL DIMENSIONS IN INCHES

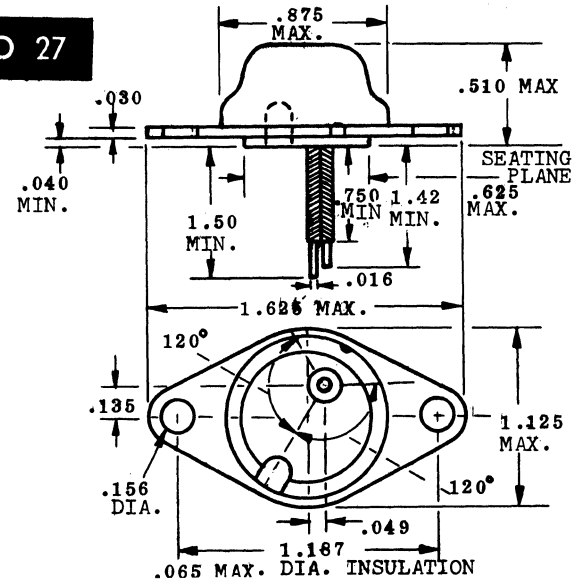
15. OUTLINE DRAWINGS

IN ORDER OF CASE NUMBER

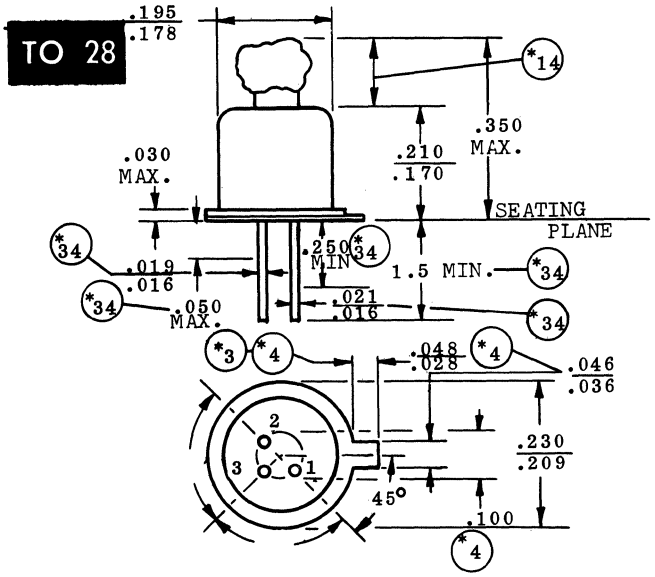
TO 26



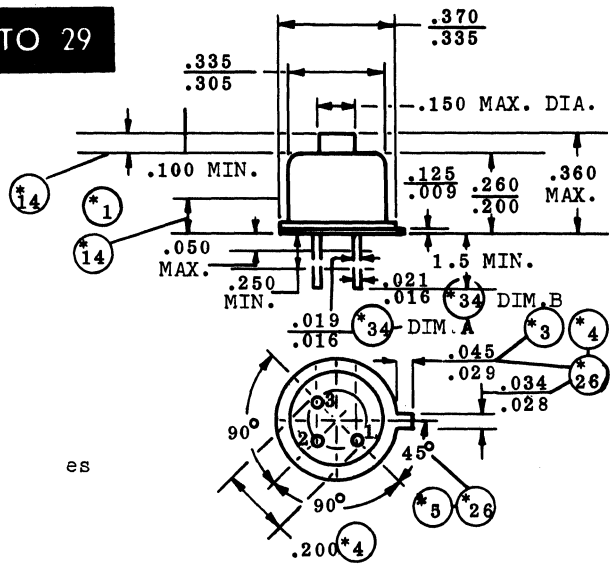
TO 27



TO 28

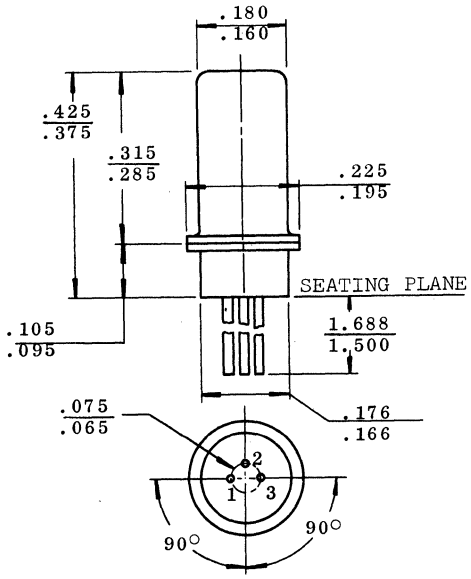


TO 29

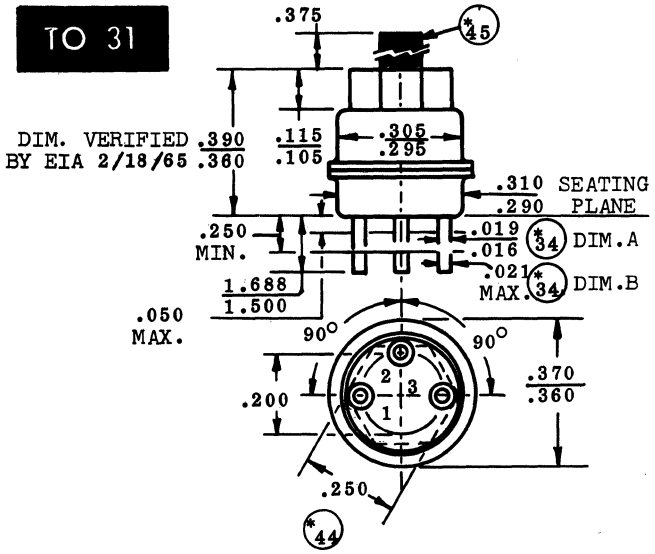


es

TO 30



TO 31



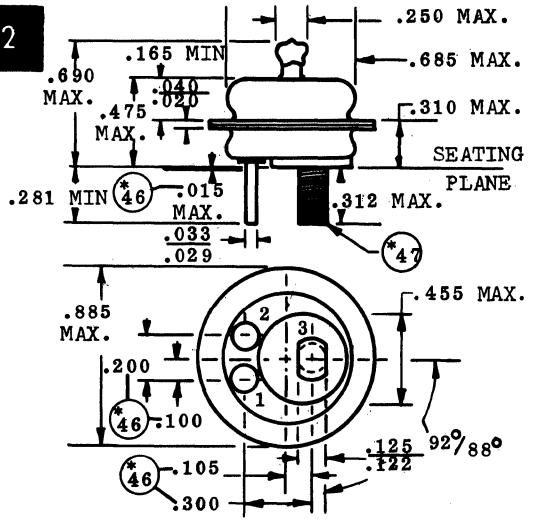
(*) INDICATE NOTE NUMBER AT END OF DRAWING SECTION

ALL DIMENSIONS IN INCHES

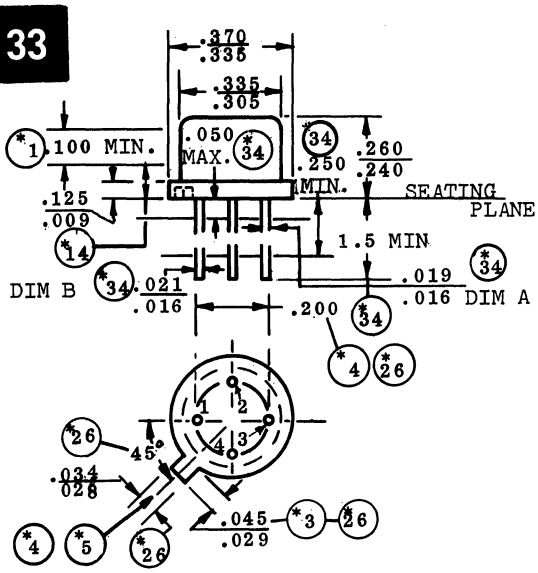
15. OUTLINE DRAWINGS

IN ORDER OF CASE NUMBER

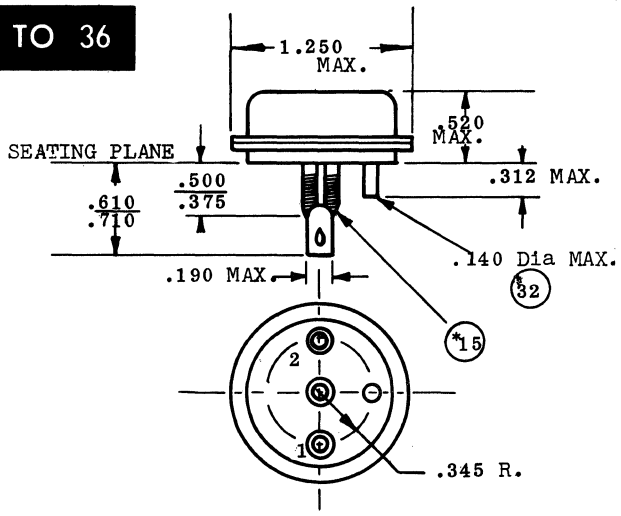
TO 32



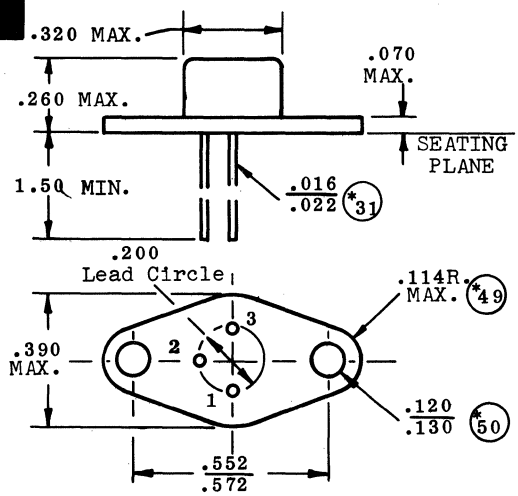
TO 33



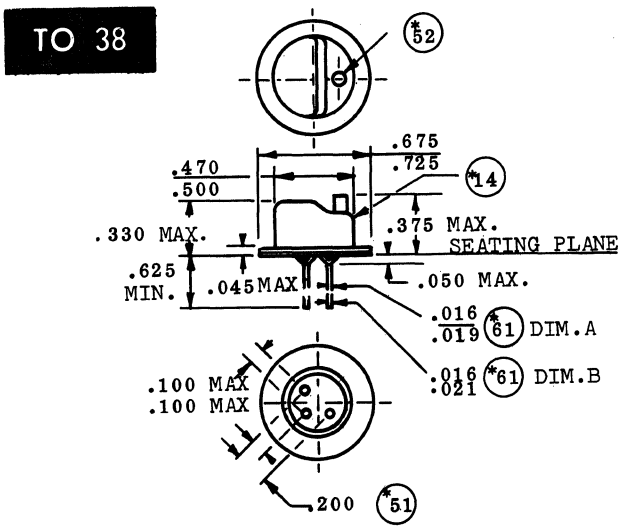
TO 36



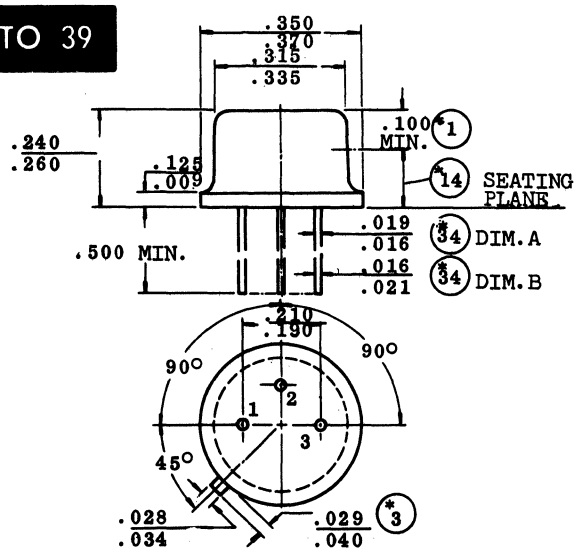
TO 37



TO 38



TO 39

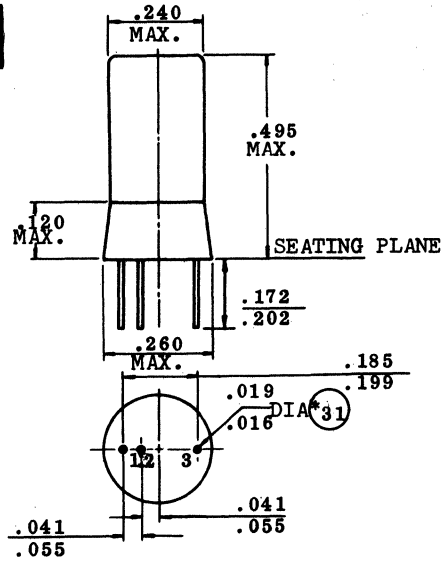


(*) INDICATES NOTE NUMBER AT END OF DRAWING SECTION

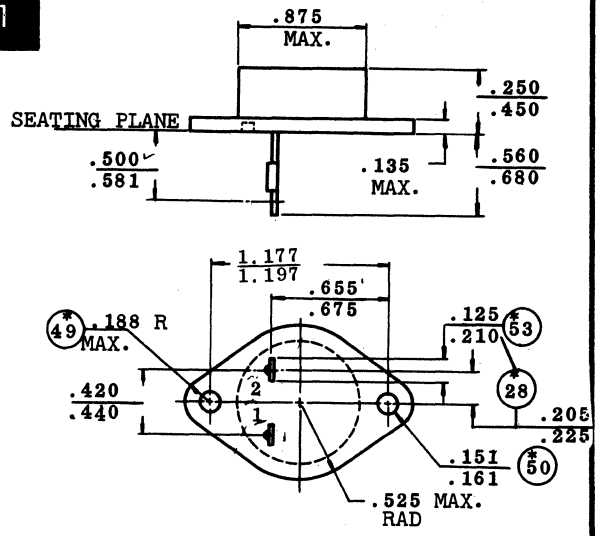
ALL DIMENSIONS IN INCHES

15. OUTLINE DRAWINGS

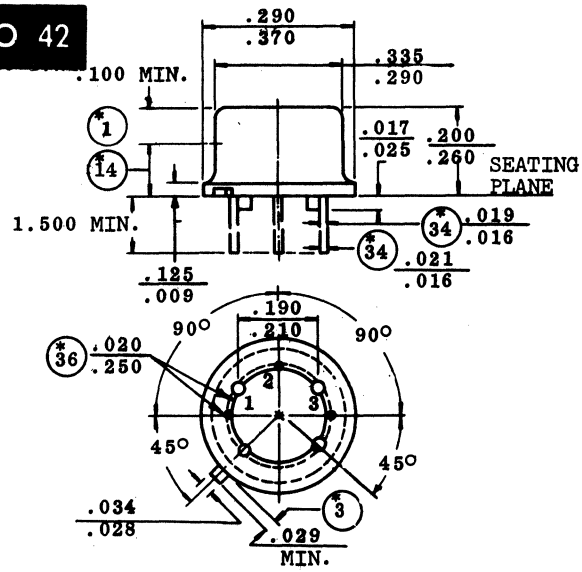
TO 40



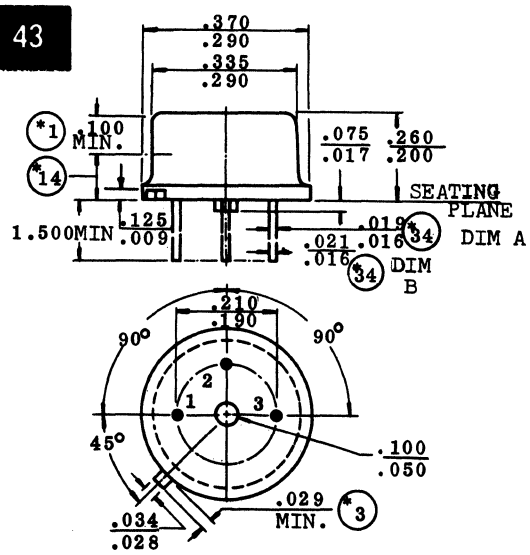
TO 41



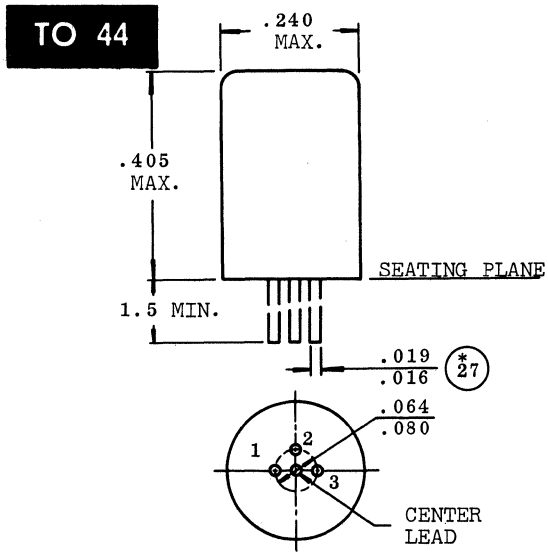
TO 42



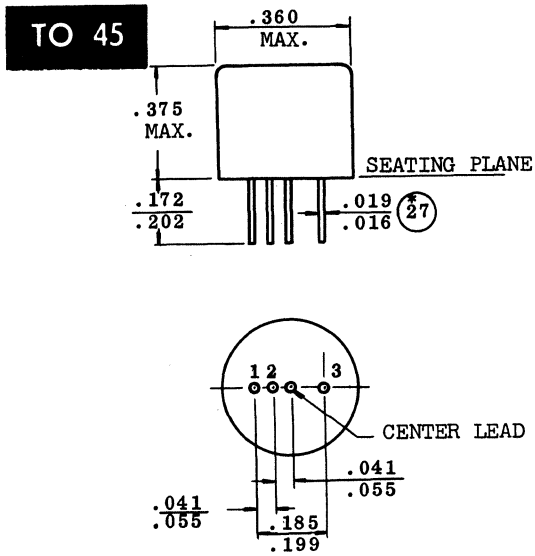
TO 43



TO 44



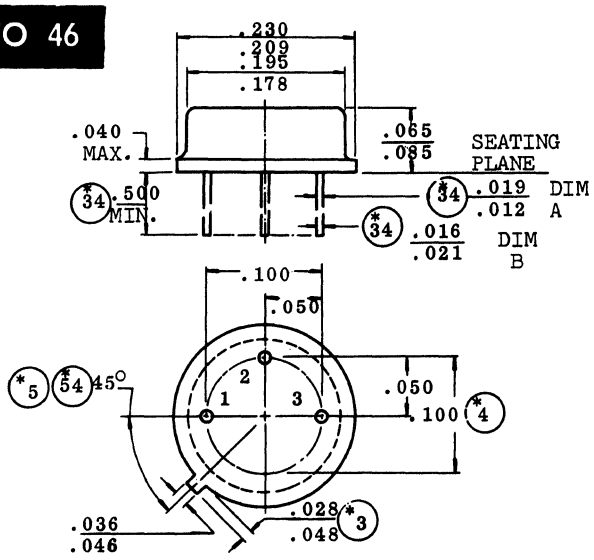
TO 45



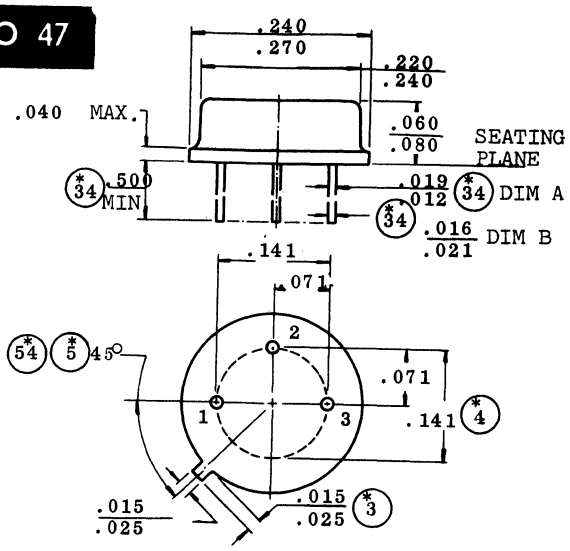
(*) INDICATES NOTE NUMBER AT END OF DRAWING SECTION

ALL DIMENSIONS IN INCHES

TO 46

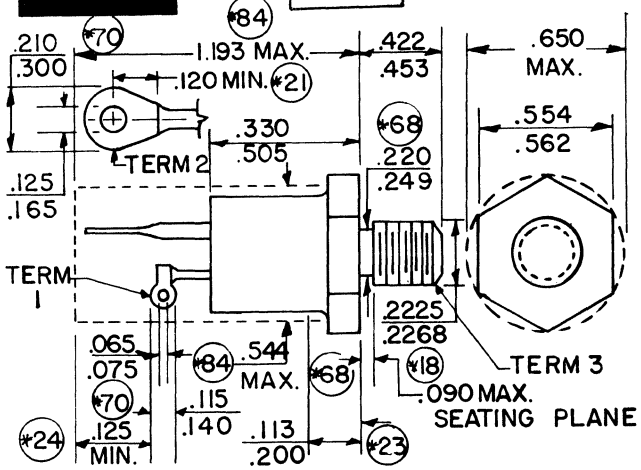


TO 47



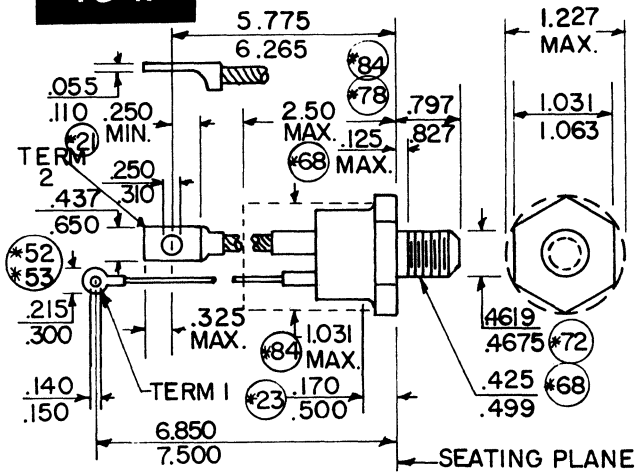
TO 48

REVISED FALL 1968



TO 49

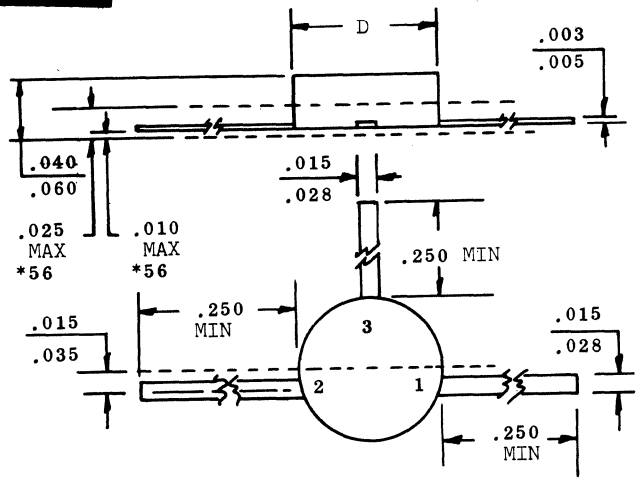
REVISED FALL 1968



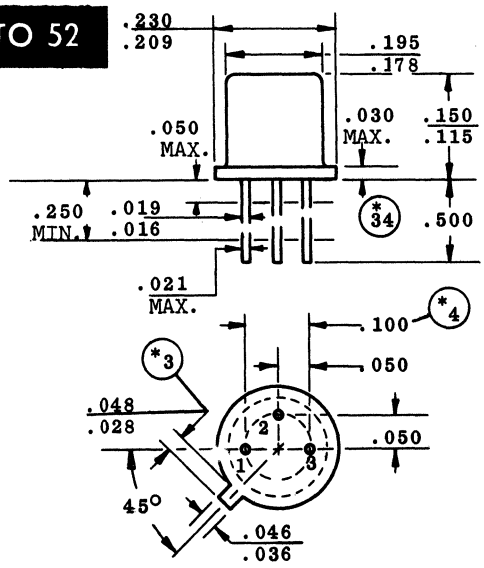
TO 50
TO 51

REVISED SPRING 1969

	D-MIN	D-MAX
TO50	.180	.215
TO51	.140	.165



TO 52

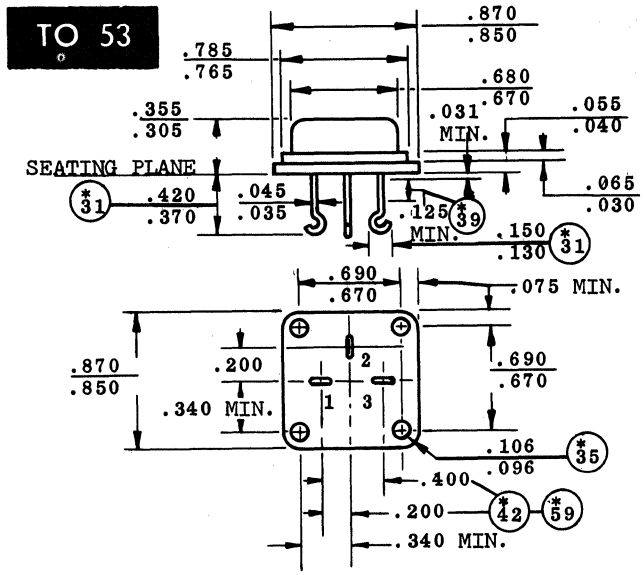


(*) INDICATE NOTE NUMBER AT END OF DRAWING SECTION

ALL DIMENSIONS IN INCHES

15. OUTLINE DRAWINGS

TO 53



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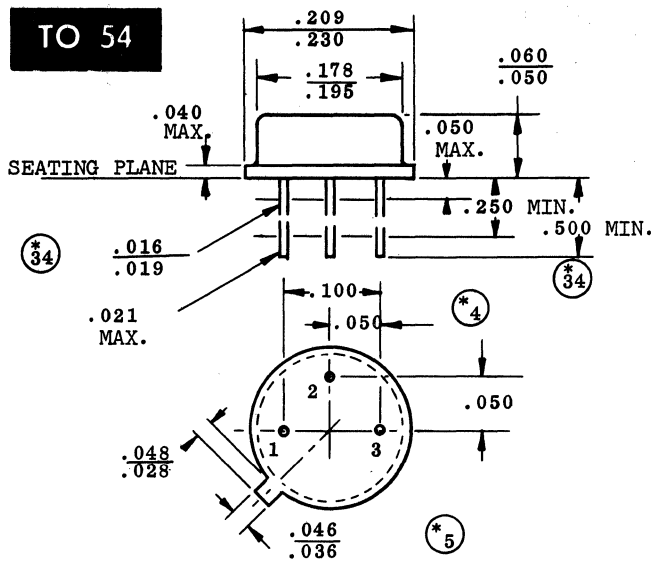

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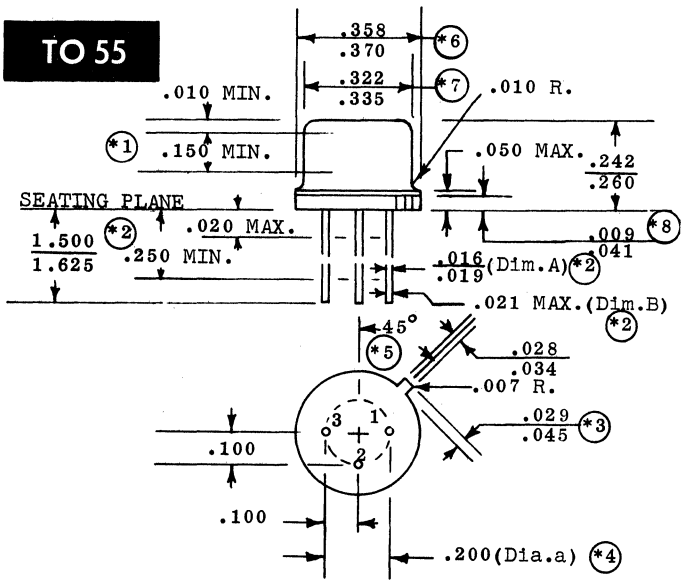
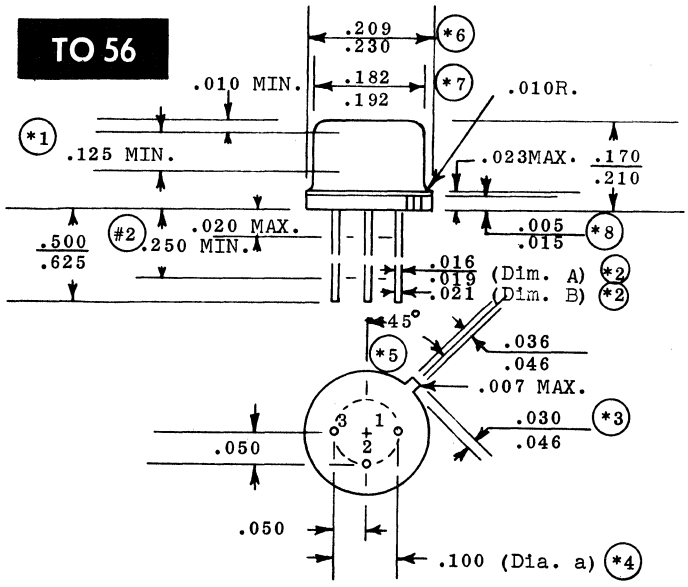
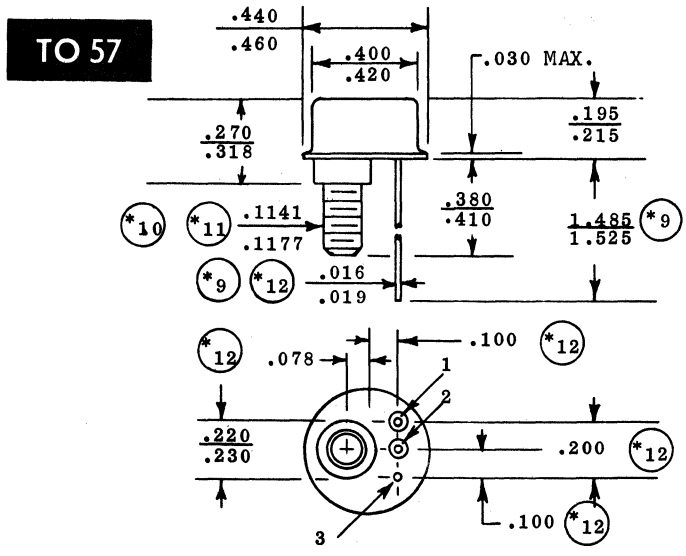


TO 56



TO 57



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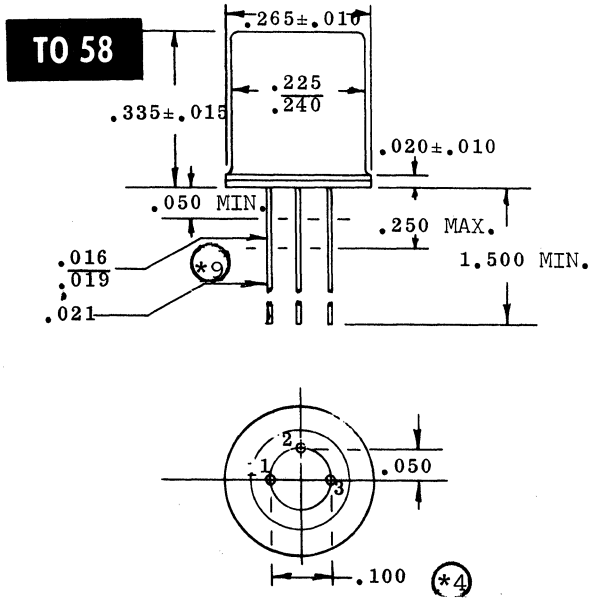
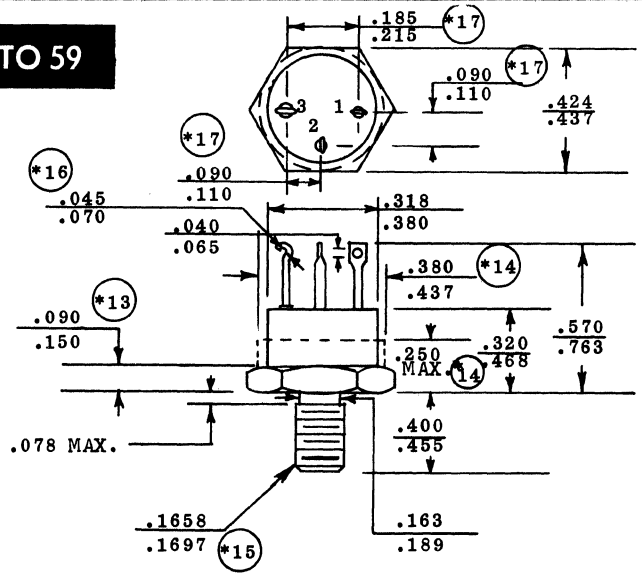


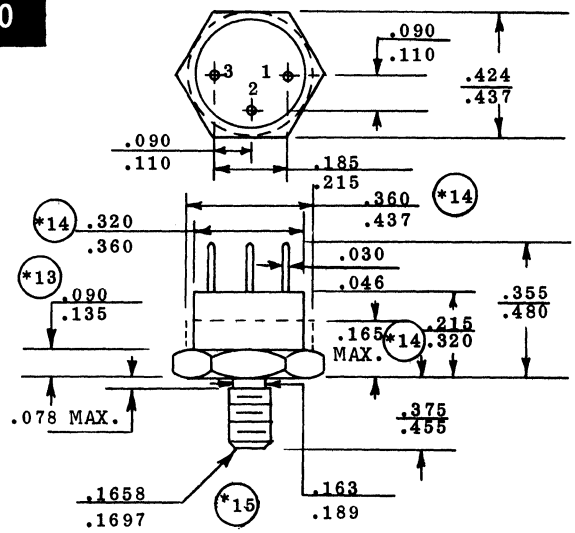
(*) INDICATES NOTE NUMBER AT END OF DRAWING SECTION

ALL DIMENSIONS IN INCHES

TO 59



TO 60



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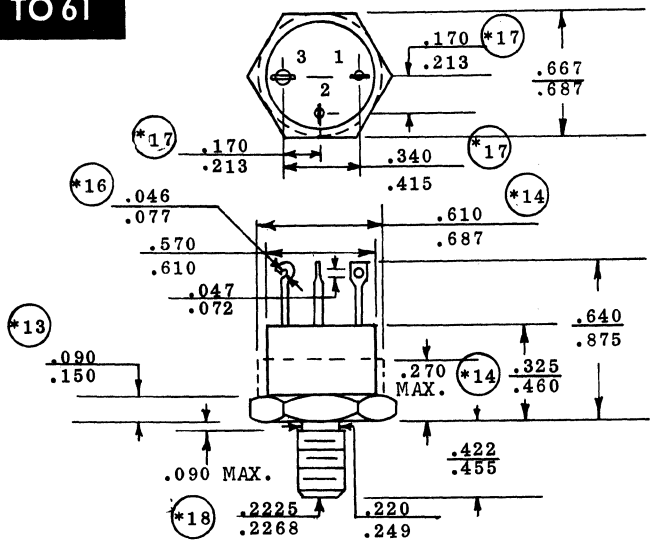
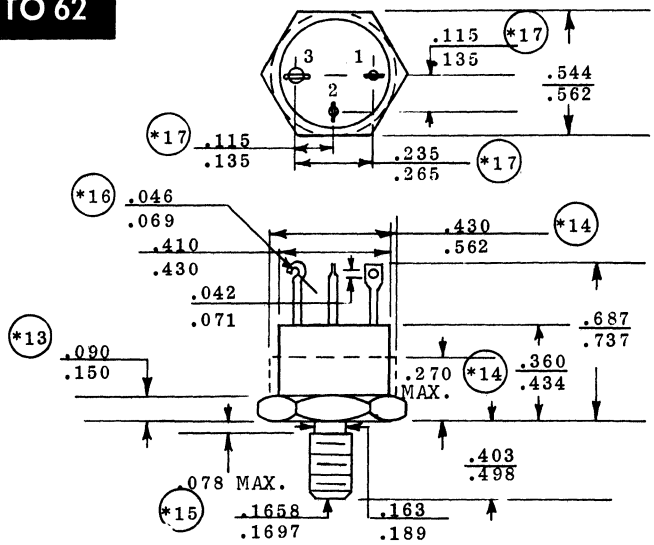
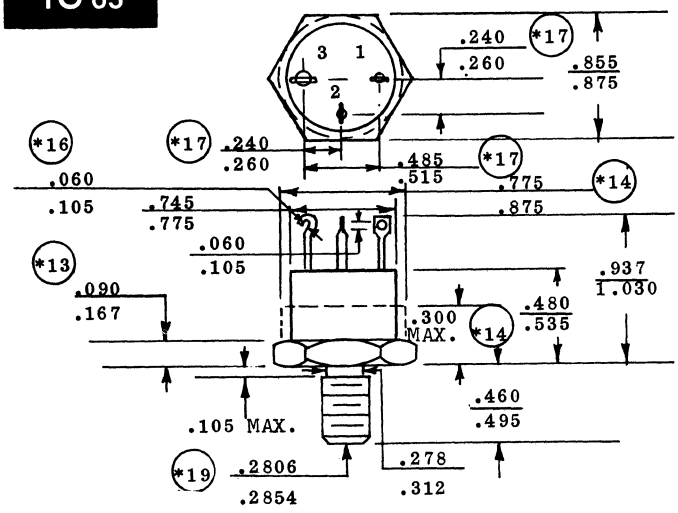


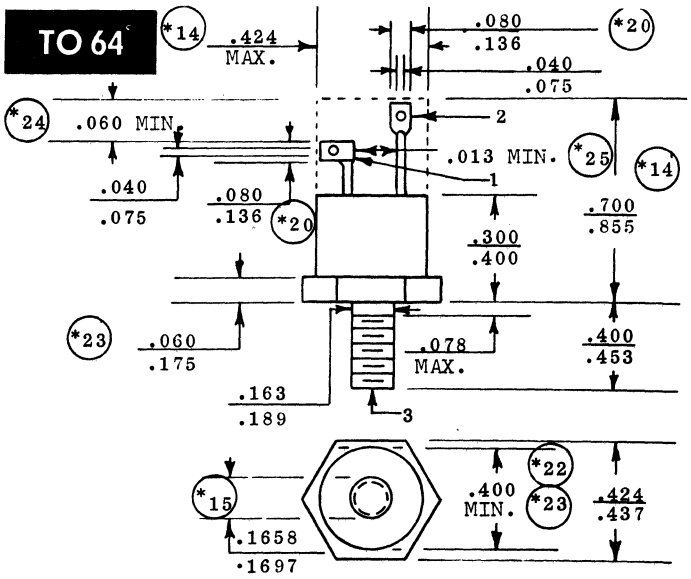
TO 62



TO 63

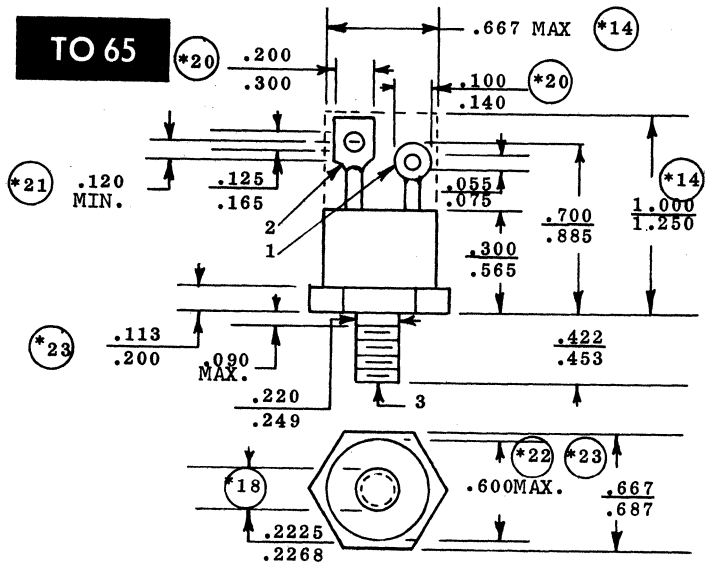


TO 64

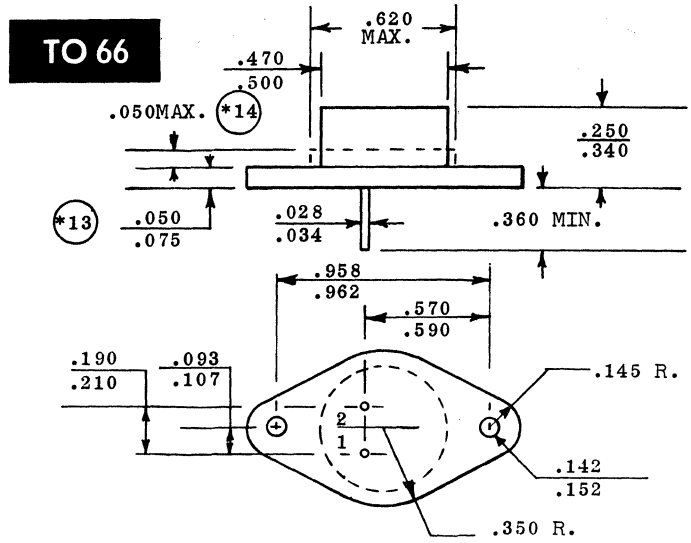


(*) INDICATES NOTE NUMBER AT END OF DRAWING SECTION

TO 65



TO 66



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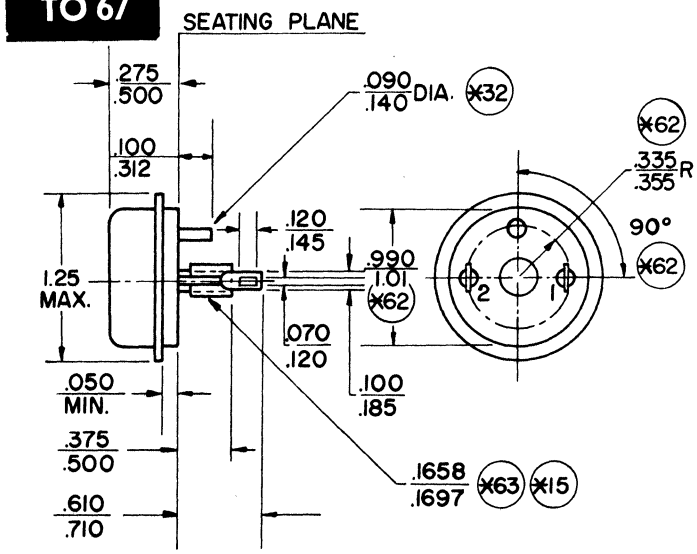

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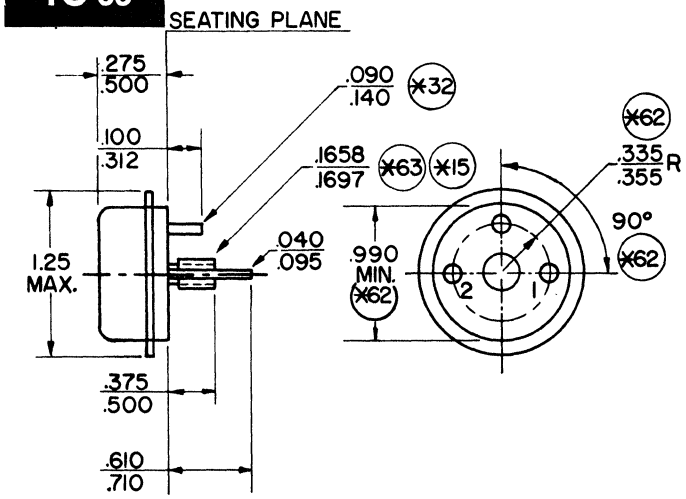

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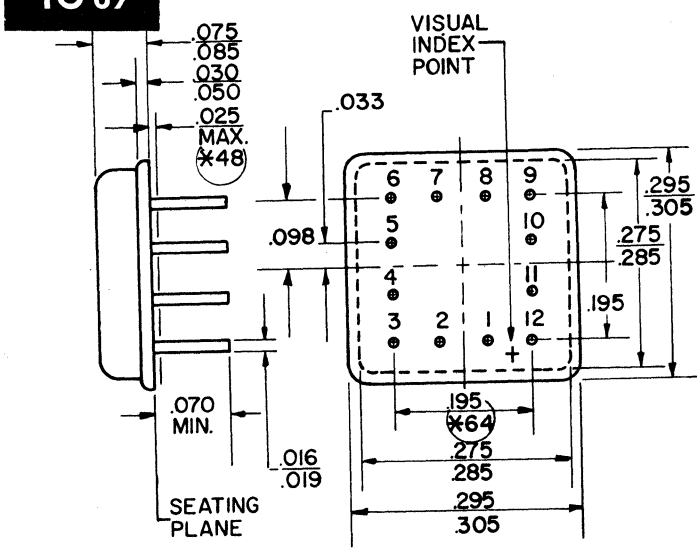

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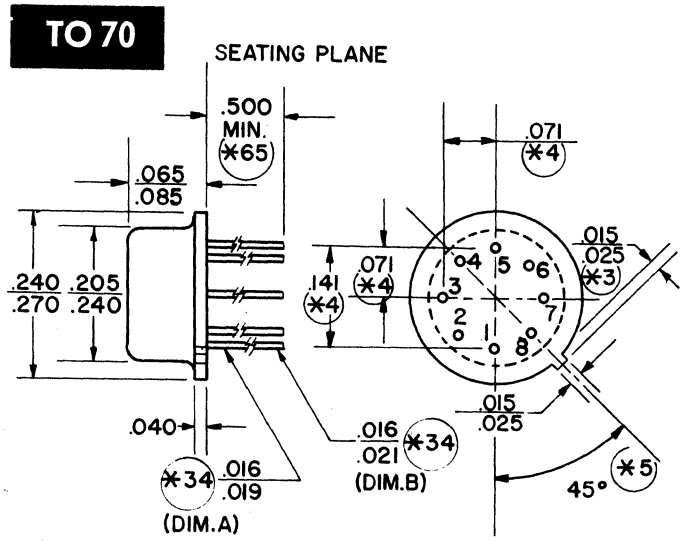

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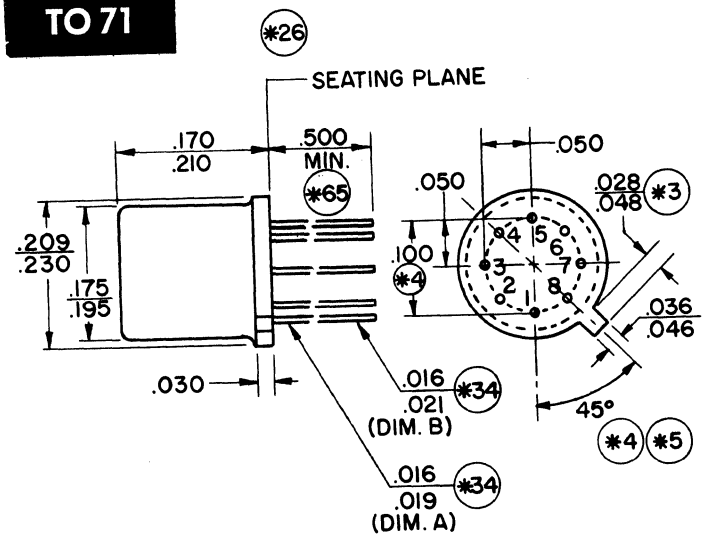

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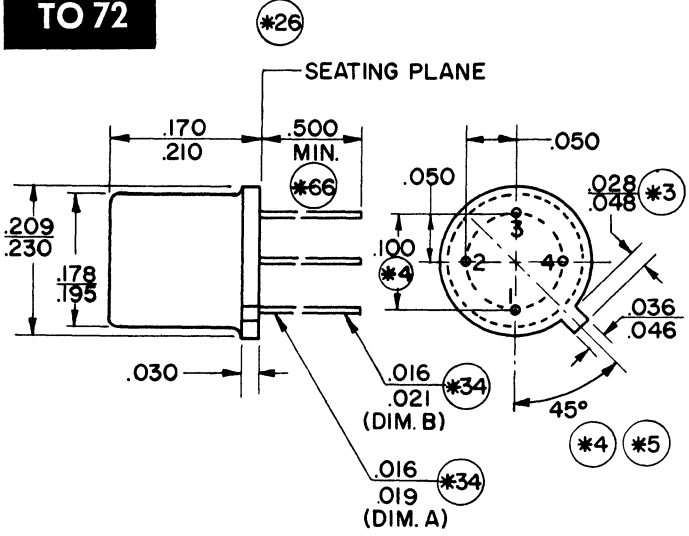

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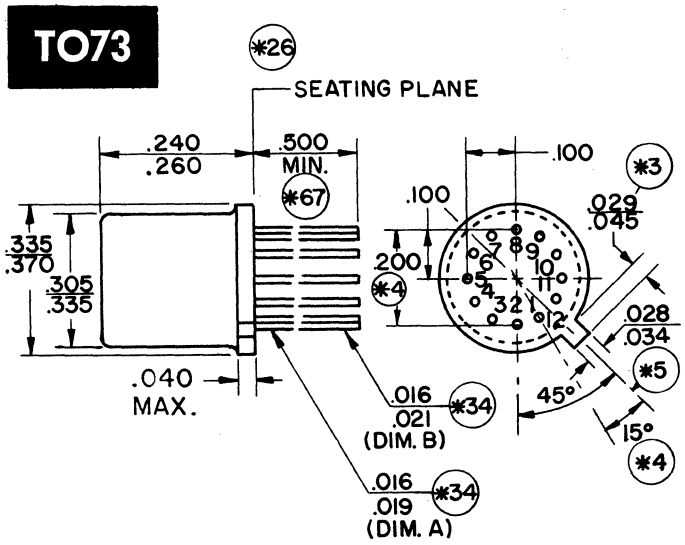

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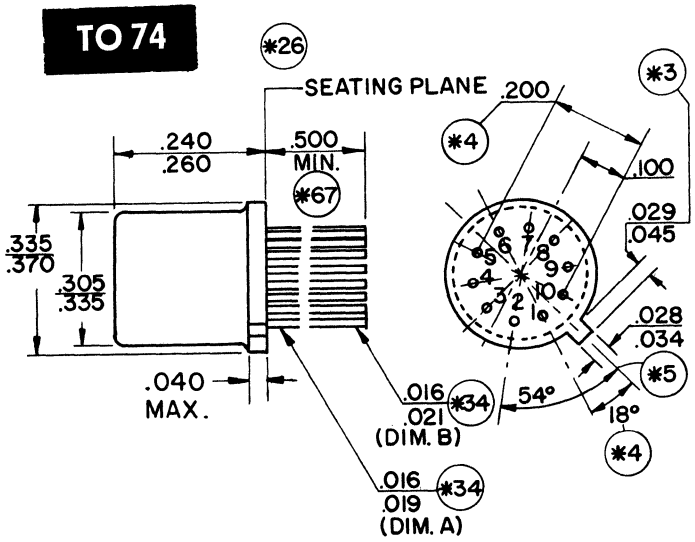

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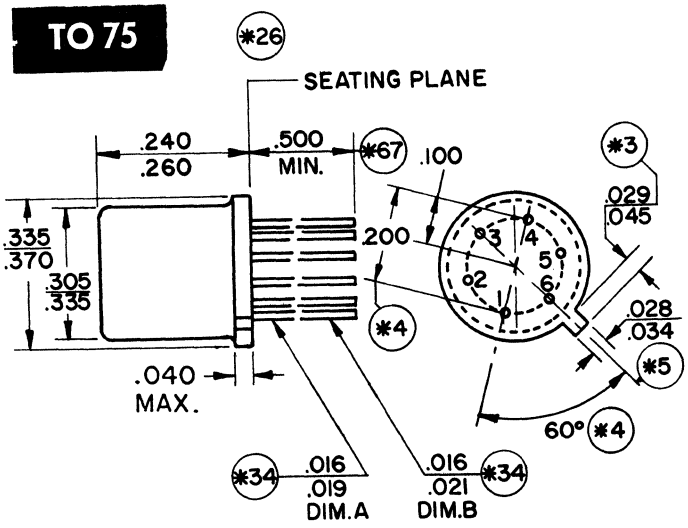

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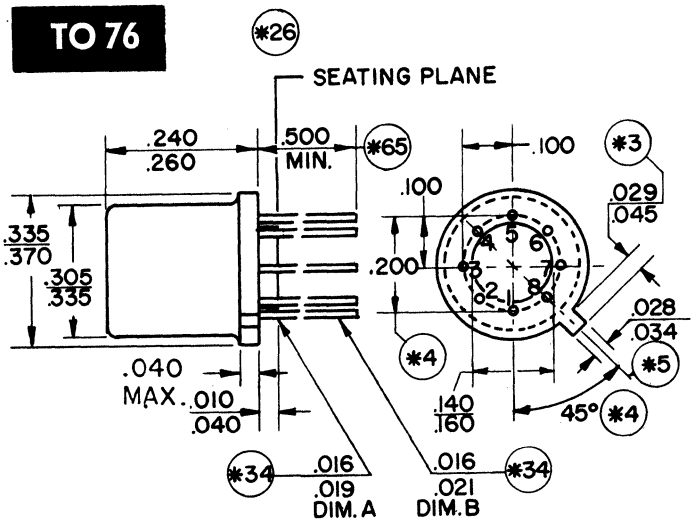
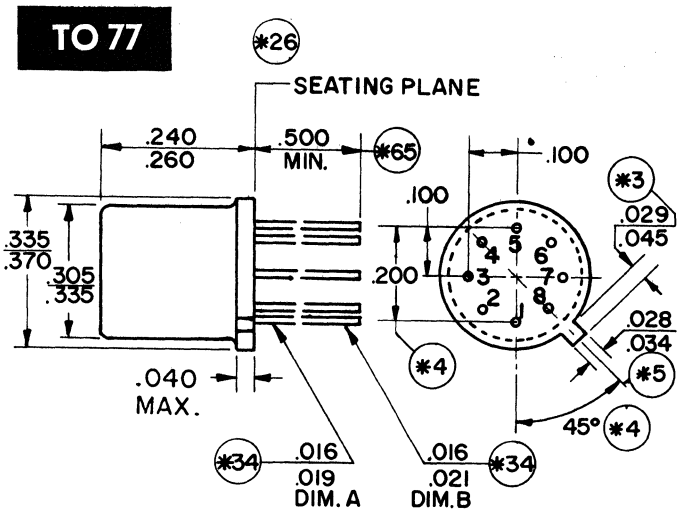


(*) INDICATE NOTE NUMBER AT END OF DRAWING SECTION

ALL DIMENSIONS IN INCHES

TO 77



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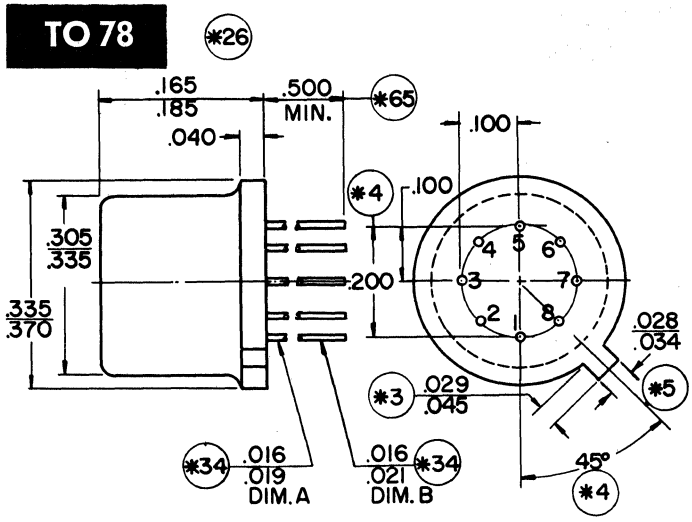
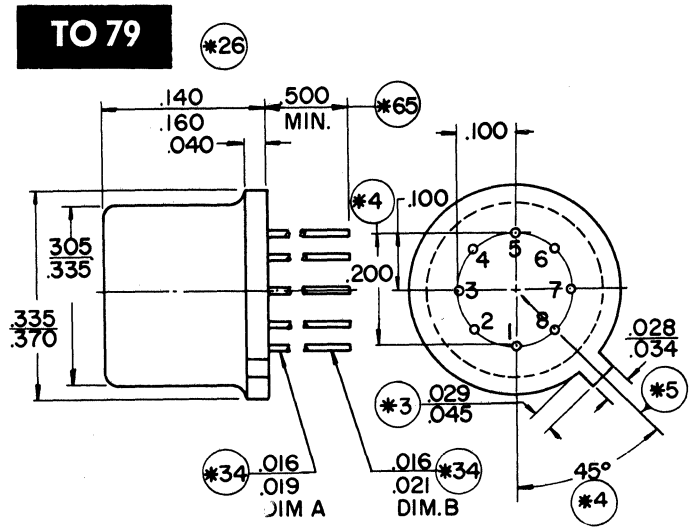


TO 79



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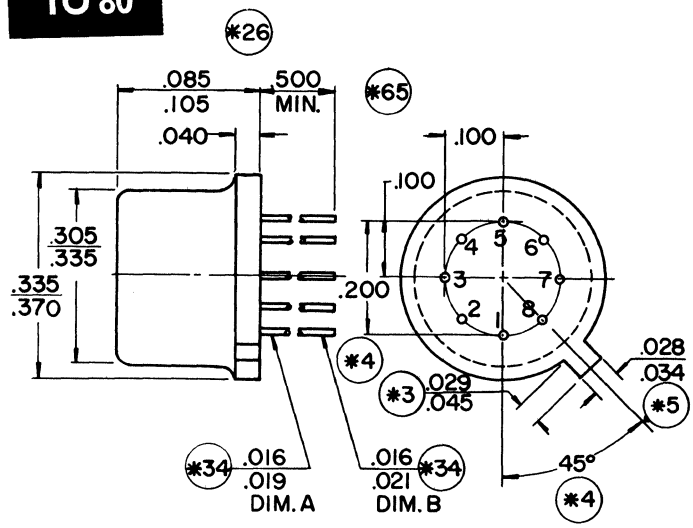
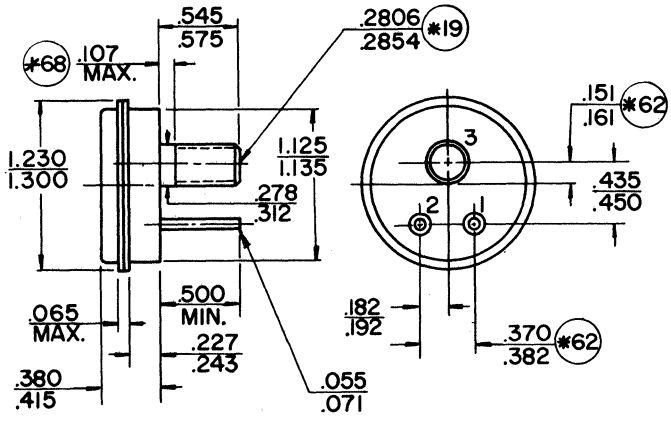


TO 81



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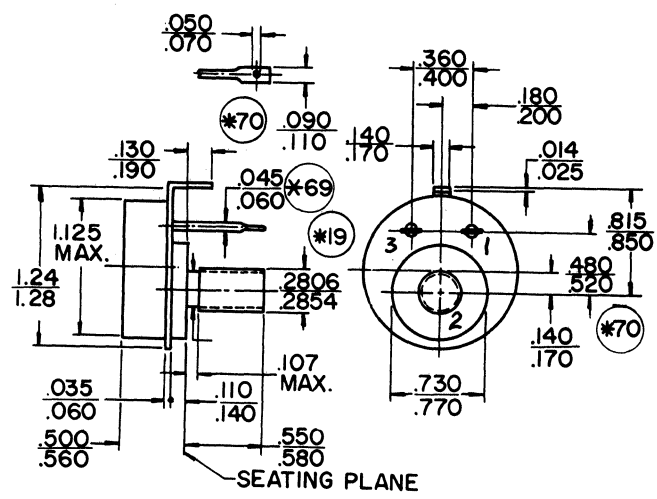
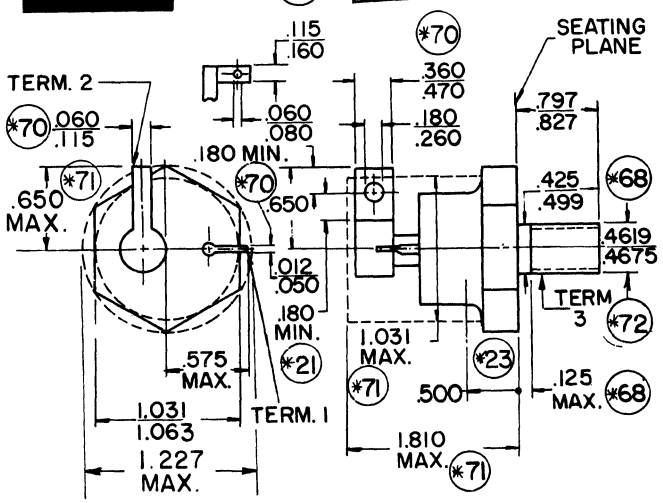


(*) INDICATE NOTE NUMBER AT END OF DRAWING SECTION

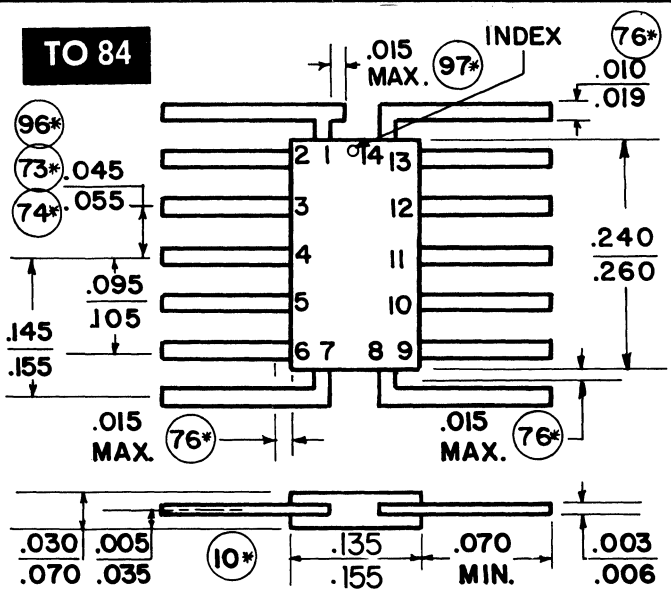
ALL DIMENSIONS IN INCHES

TO 83

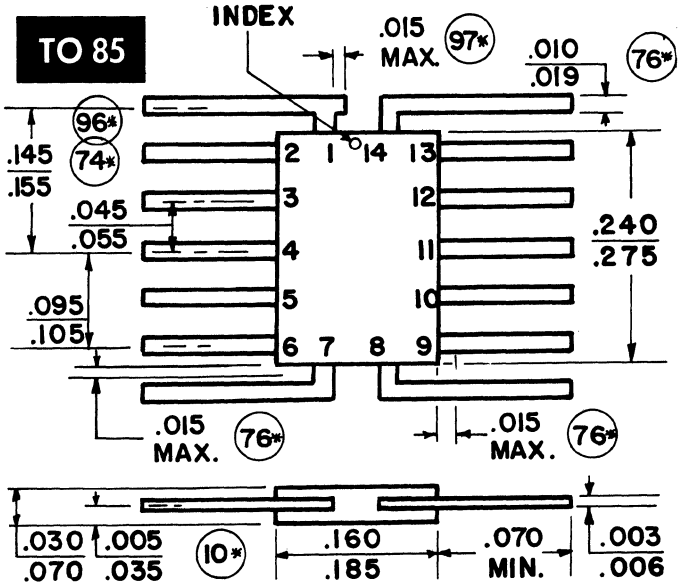
REVISED FALL 1968



TO 84

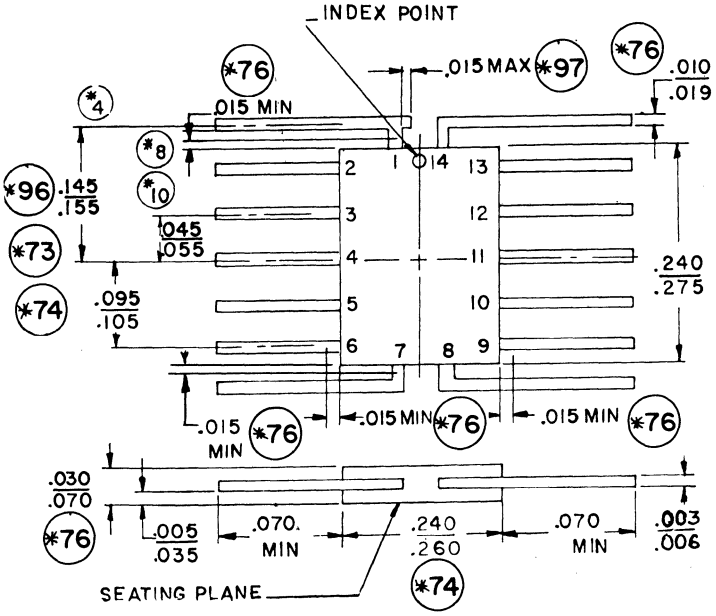


TO 85



TO 86

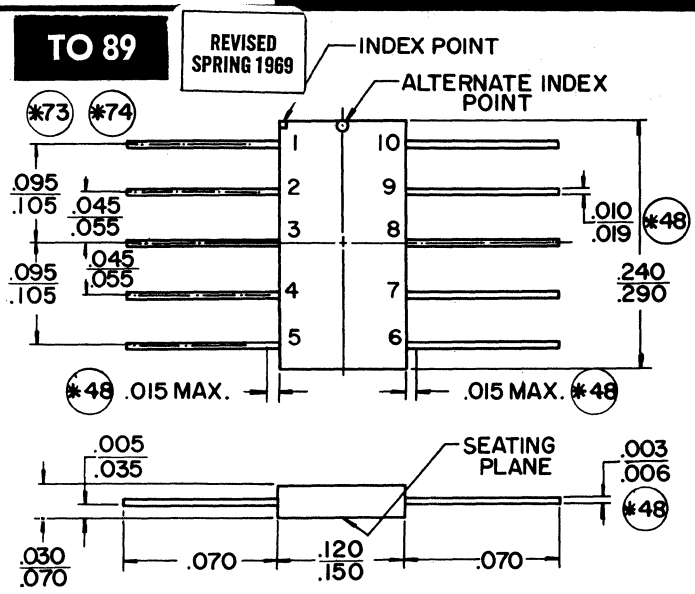
REVISED FALL 1969



(*) INDICATE NOTE NUMBER AT END OF DRAWING SECTION

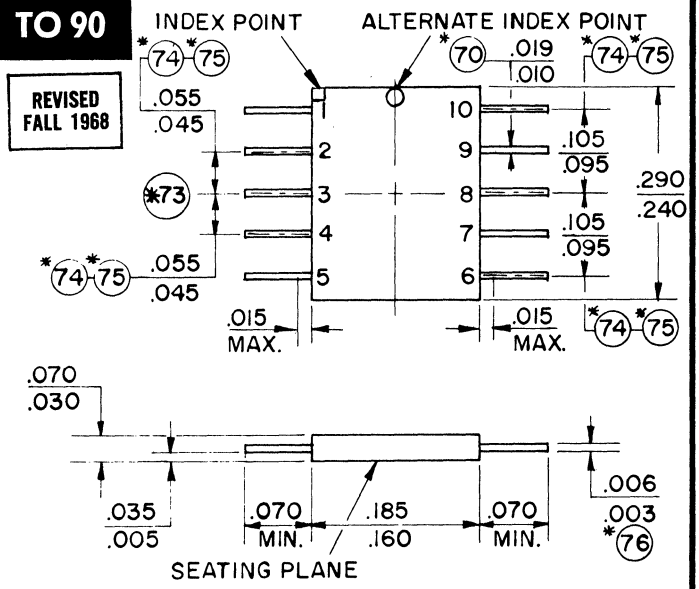
TO 89

REVISED SPRING 1969

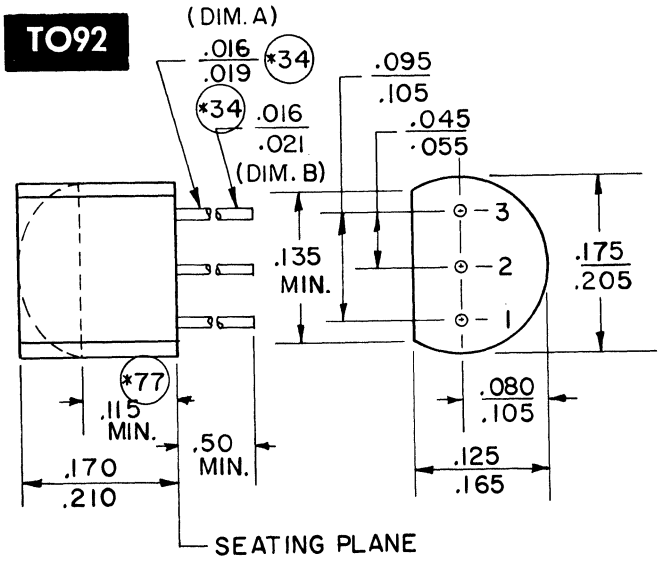


TO 90

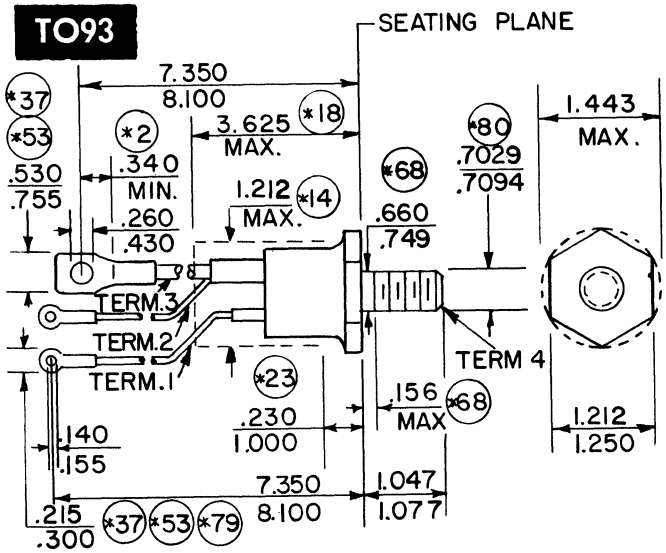
REVISED FALL 1968



TO92

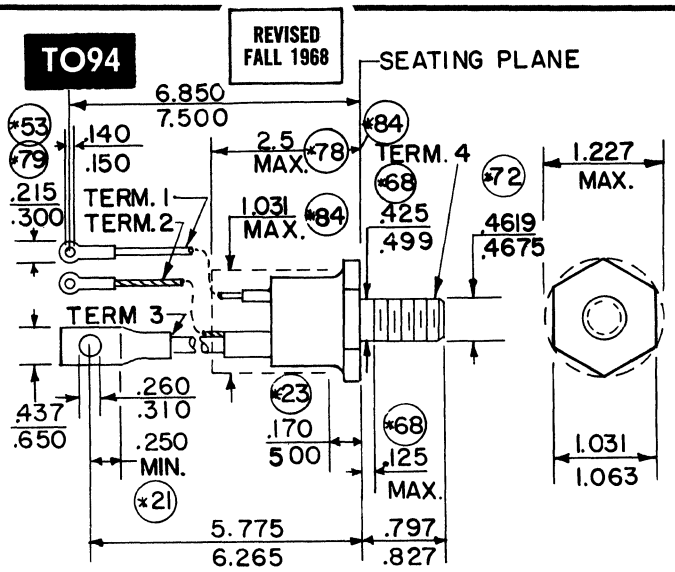


TO93

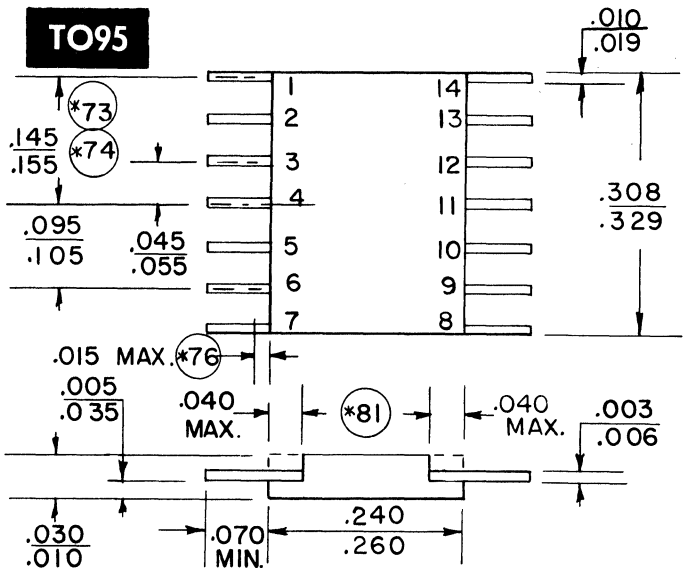


TO94

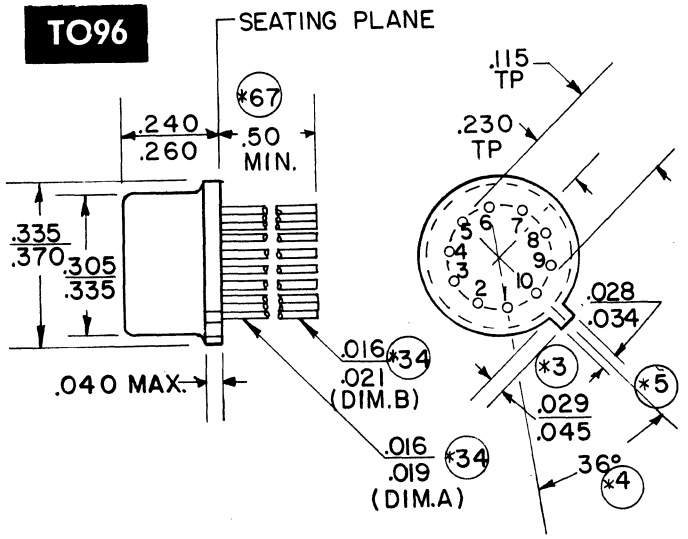
REVISED FALL 1968



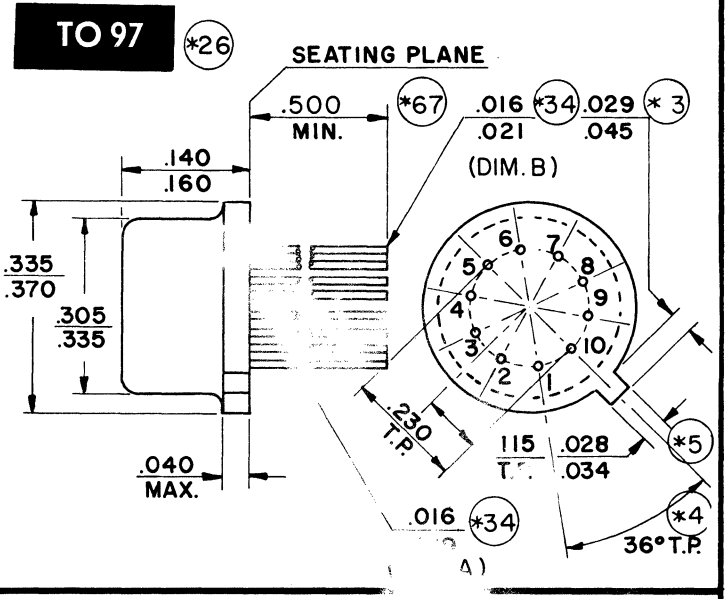
TO95



TO96

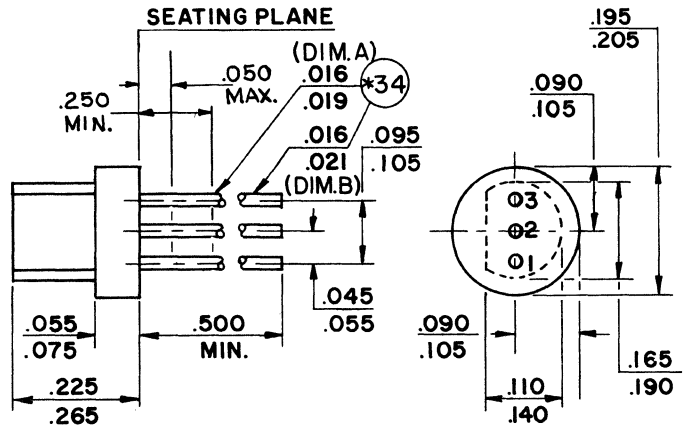


TO 97

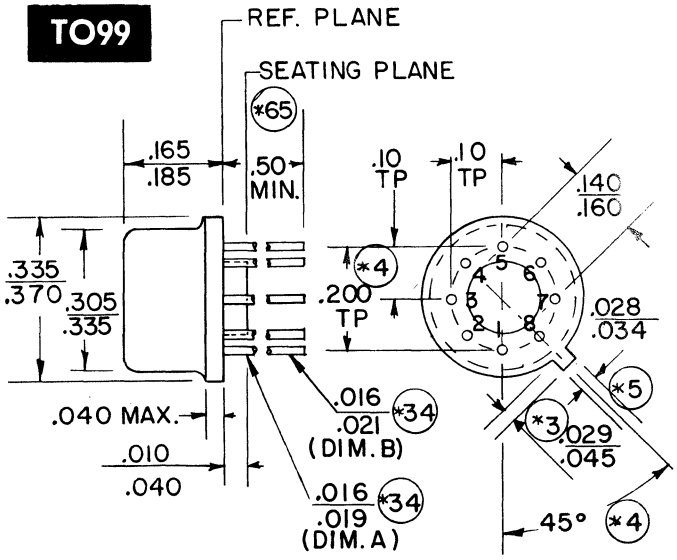


TO 98

REVISED SPRING 1969

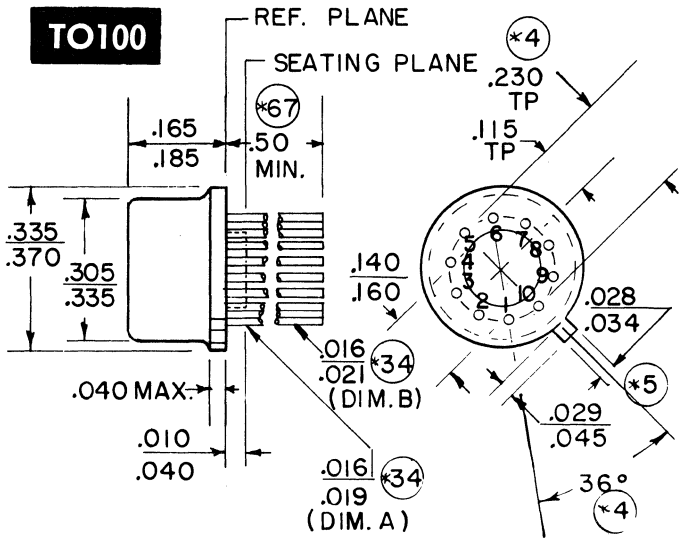


TO99

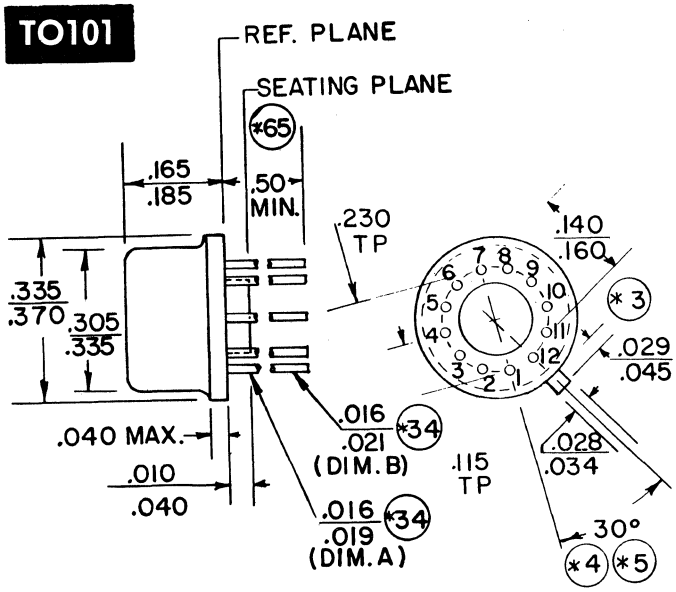


15. OUTLINE DRAWINGS

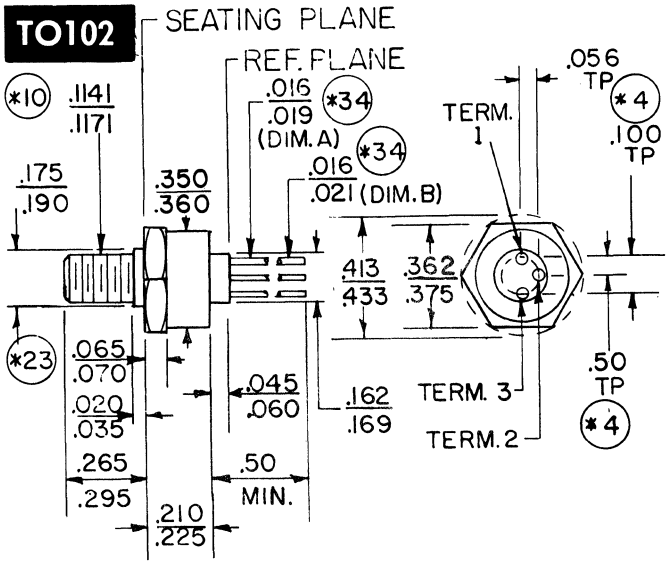
TO100



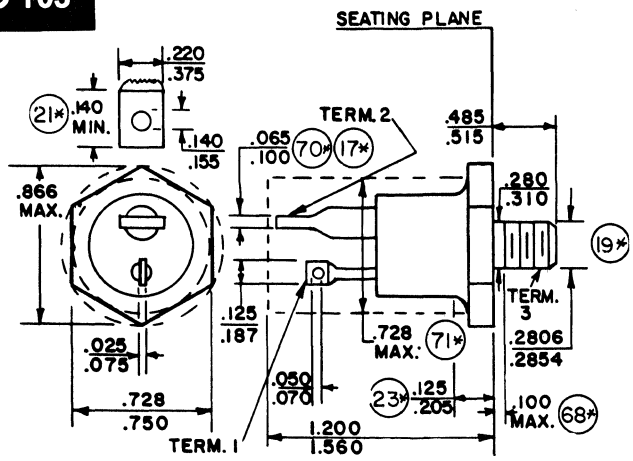
TO101



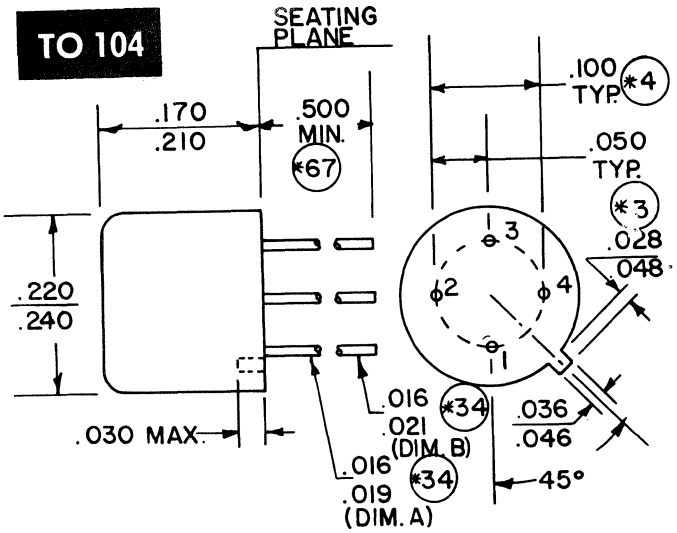
TO102



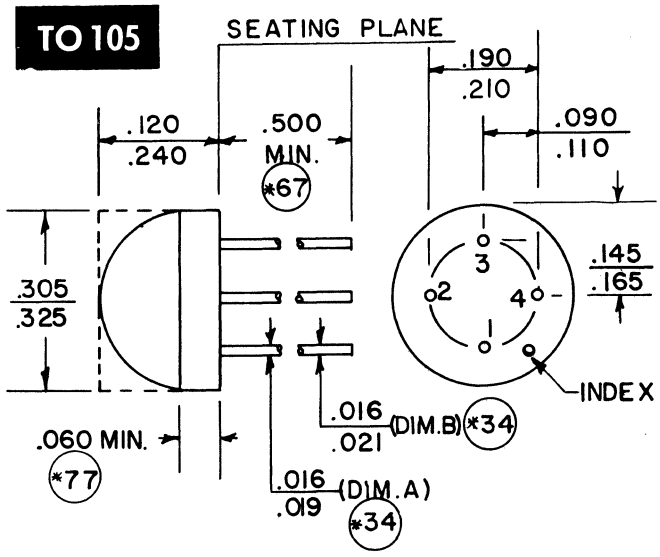
TO 103



TO 104



TO 105

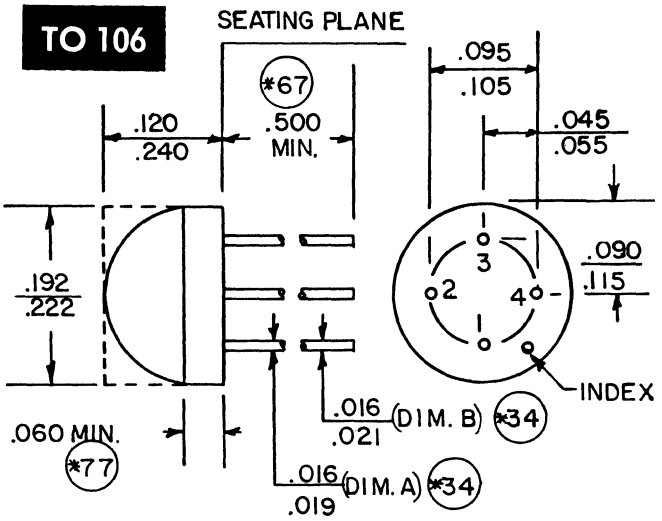


(*) INDICATES NOTE NUMBER AT END OF DRAWING SECTION

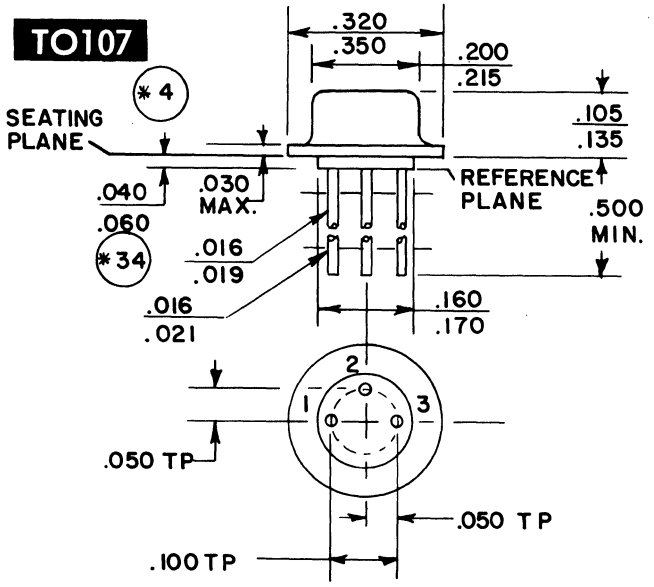
ALL DIMENSIONS IN INCHES

15. OUTLINE DRAWINGS

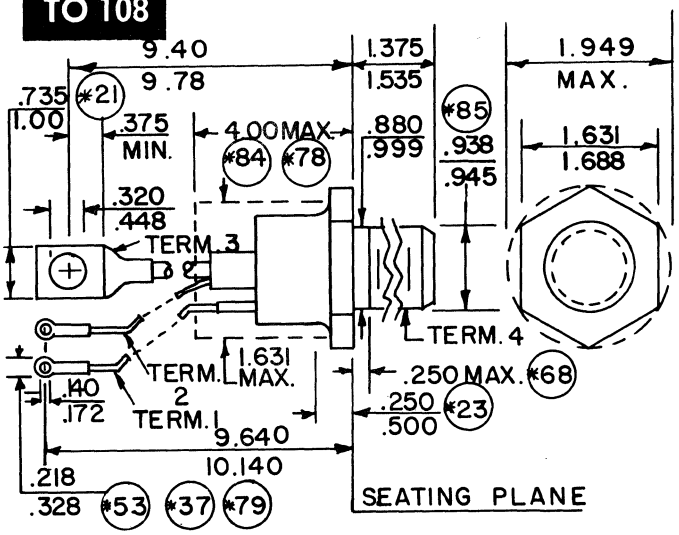
TO 106



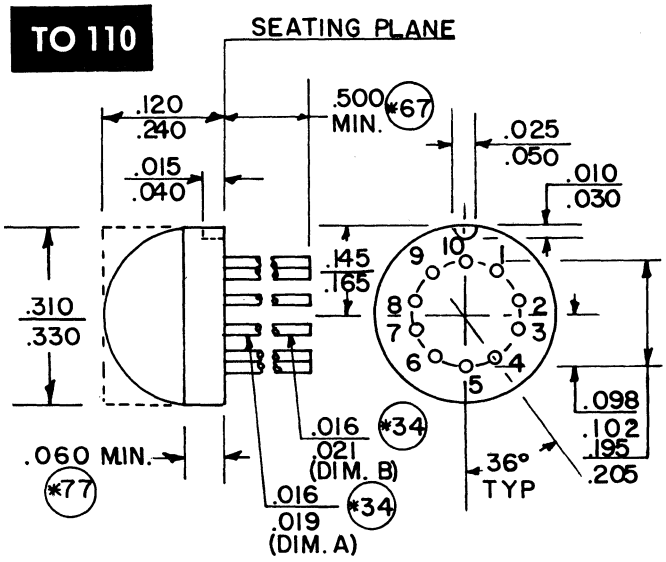
TO107



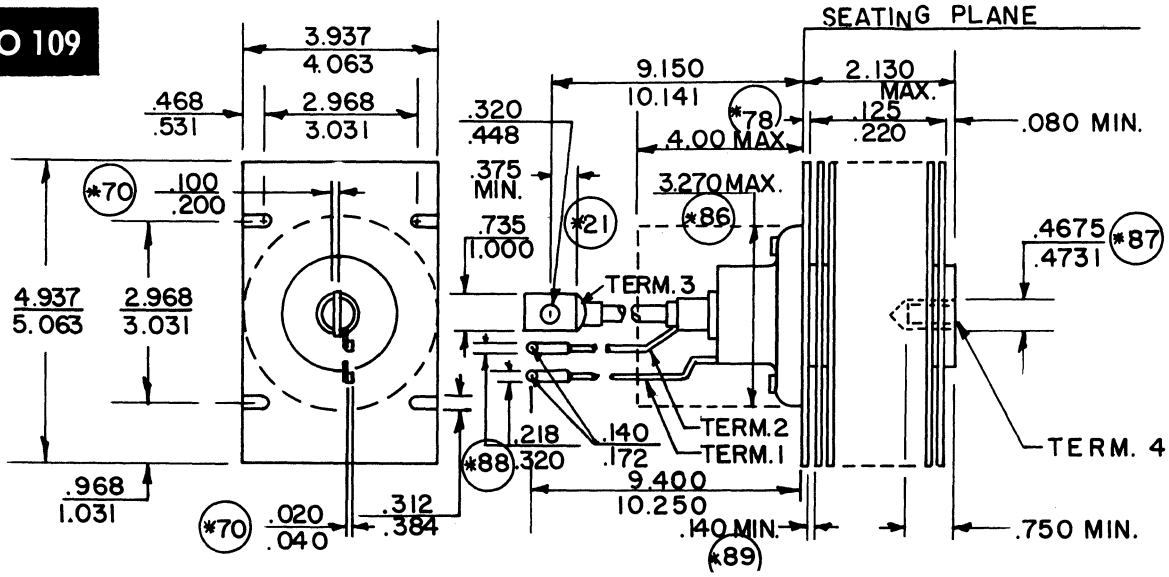
TO 108



TO 110



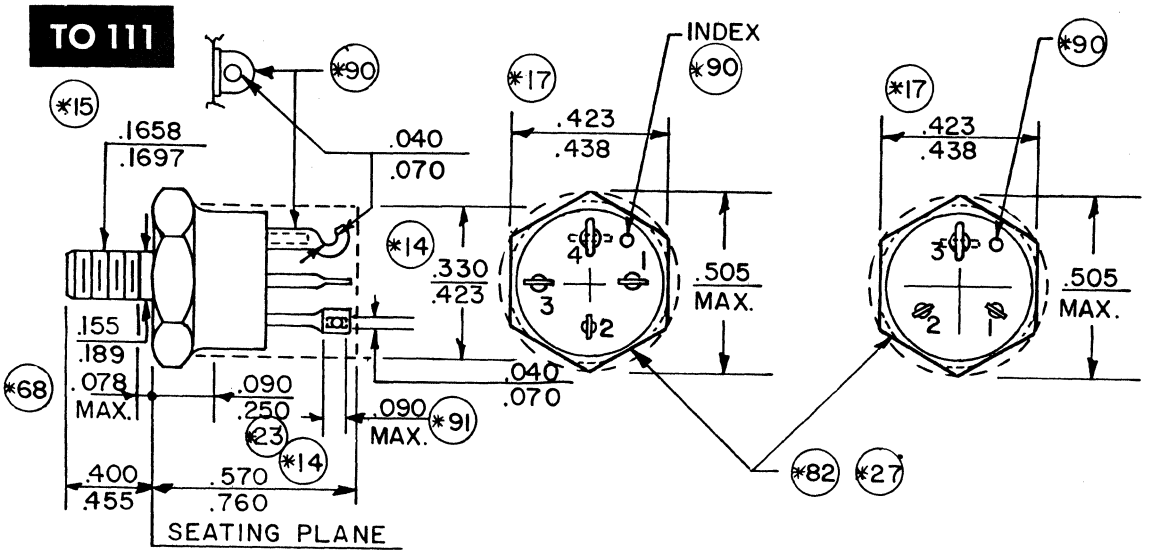
TO 109



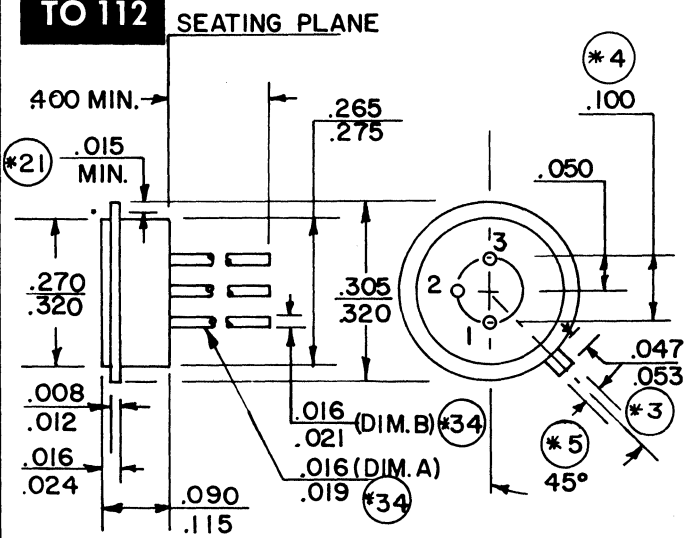
(*) INDICATES NOTE NUMBER AT END OF DRAWING SECTION

ALL DIMENSIONS IN INCHES

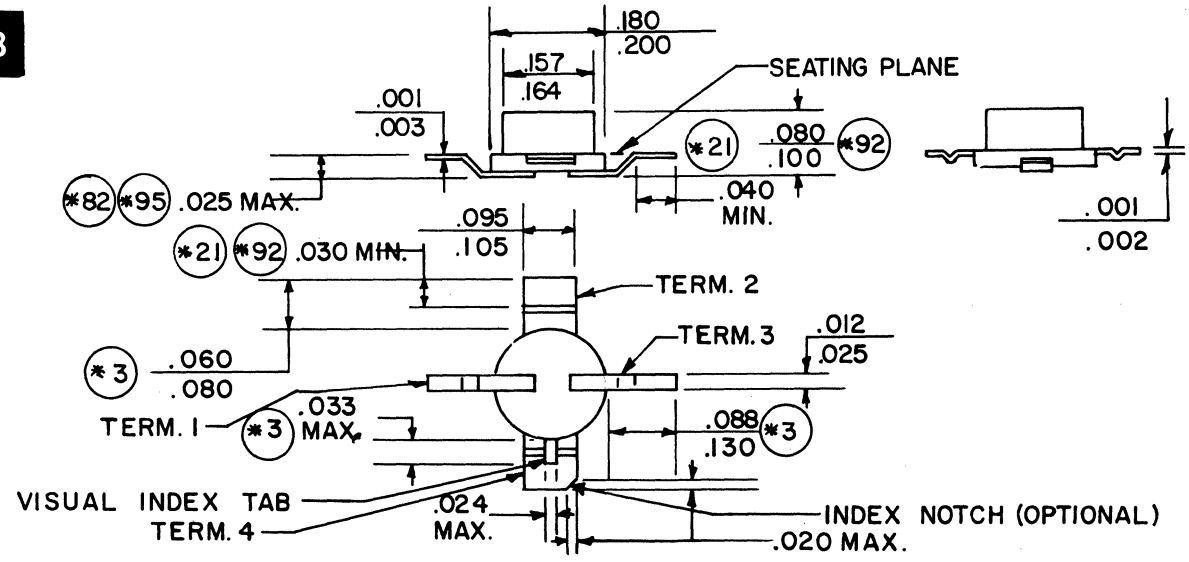
TO 111



TO 112



TO 113

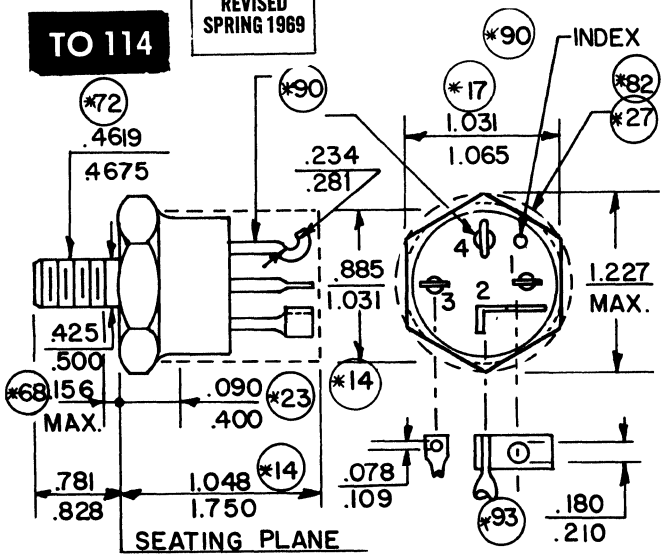


(*) INDICATES NOTE NUMBER AT END OF DRAWING SECTION

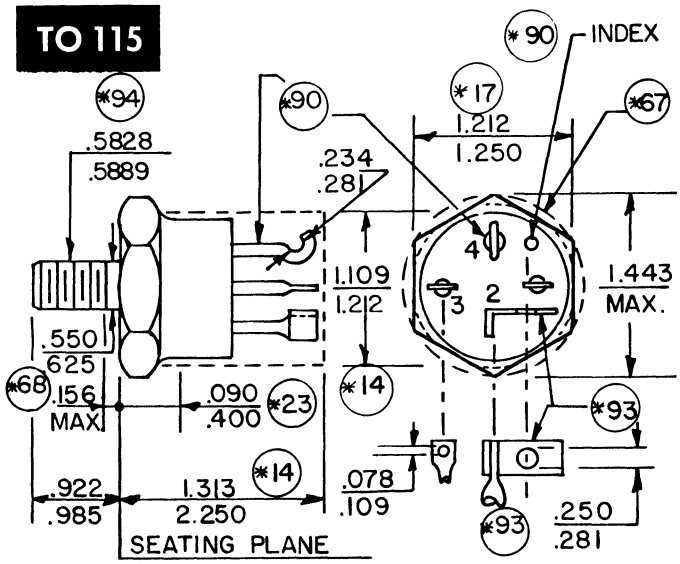
15. OUTLINE DRAWINGS

REVISED SPRING 1969

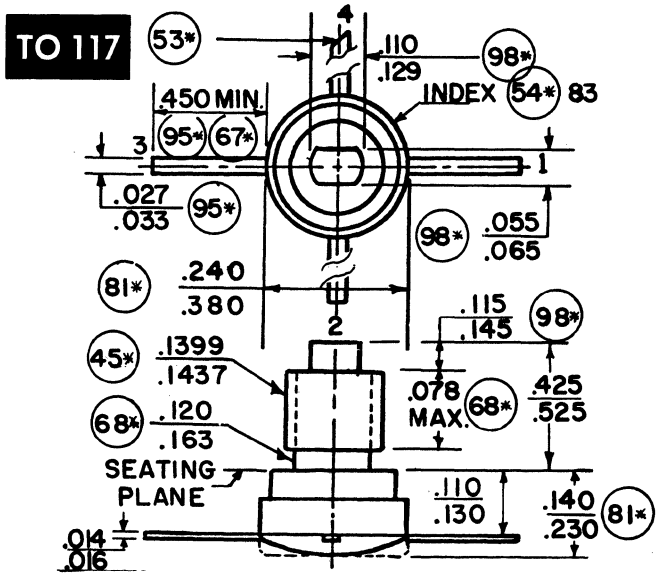
TO 114



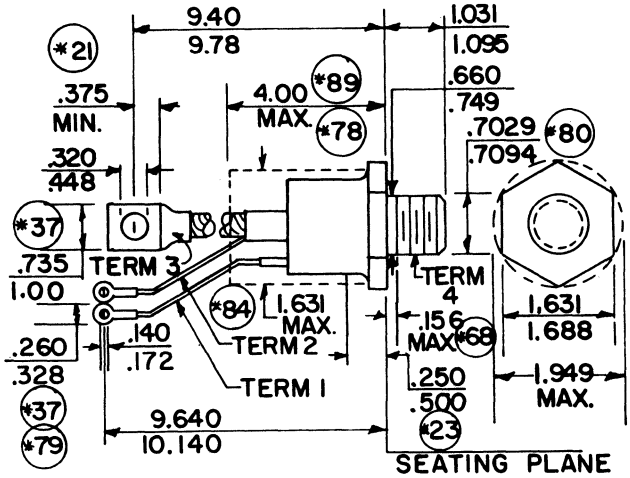
TO 115



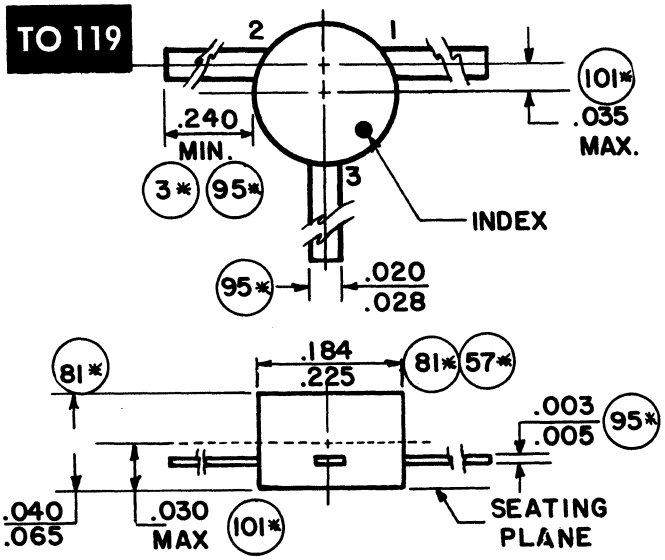
TO 117



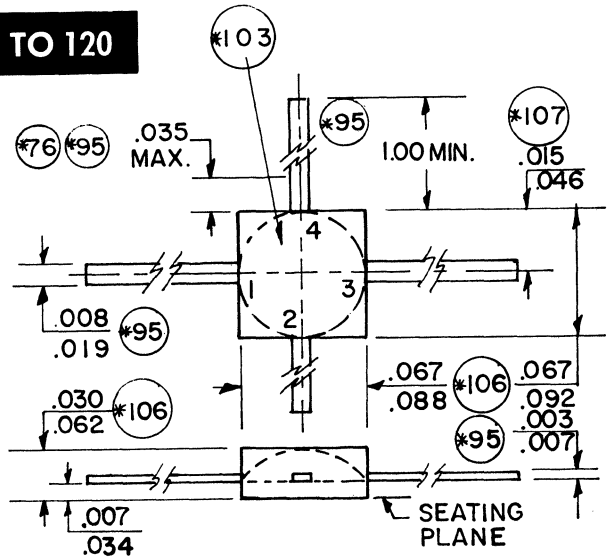
TO 118



TO 119



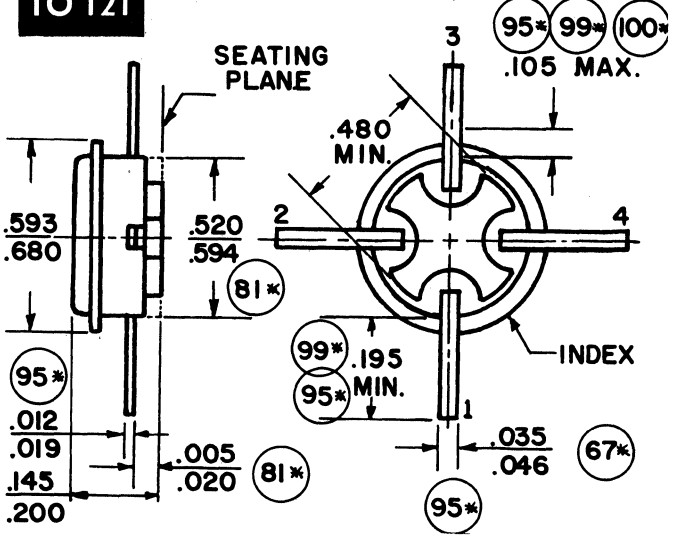
TO 120



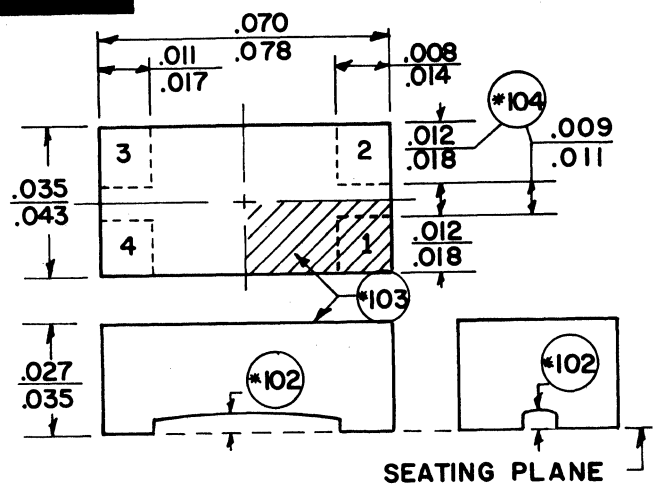
(*) INDICATE NOTE NUMBER AT END OF DRAWING SECTION

ALL DIMENSIONS IN INCHES

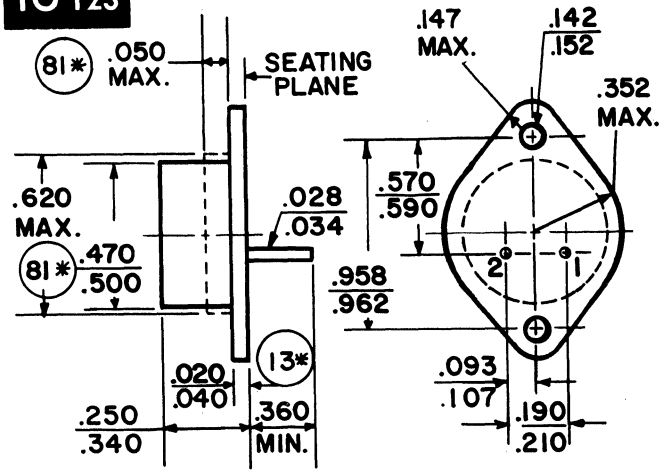
TO 121



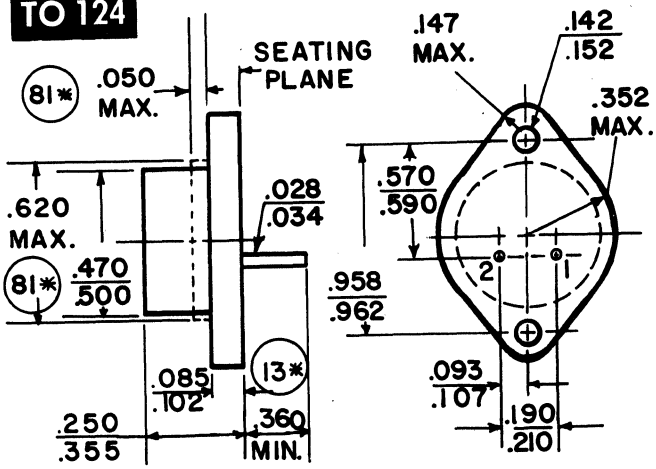
TO 122



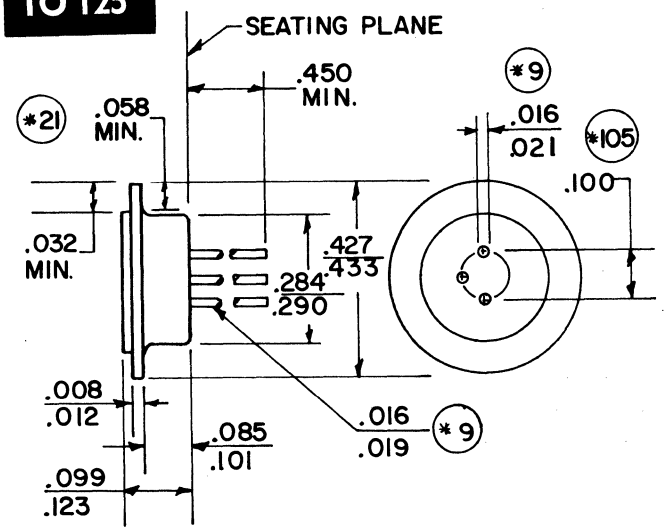
TO 123



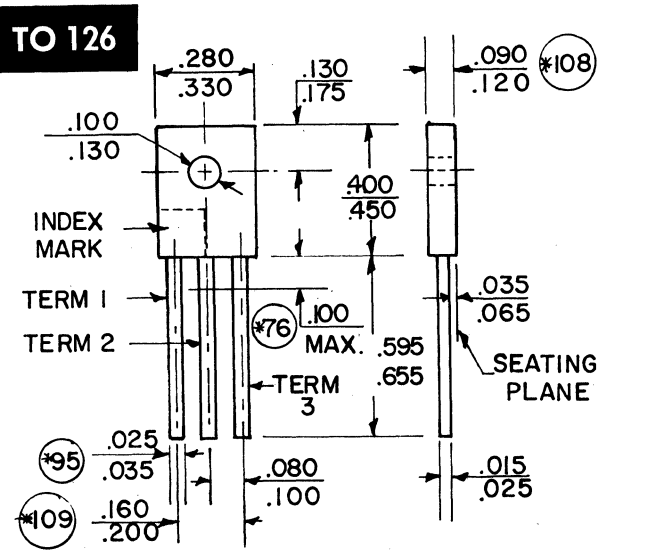
TO 124



TO 125

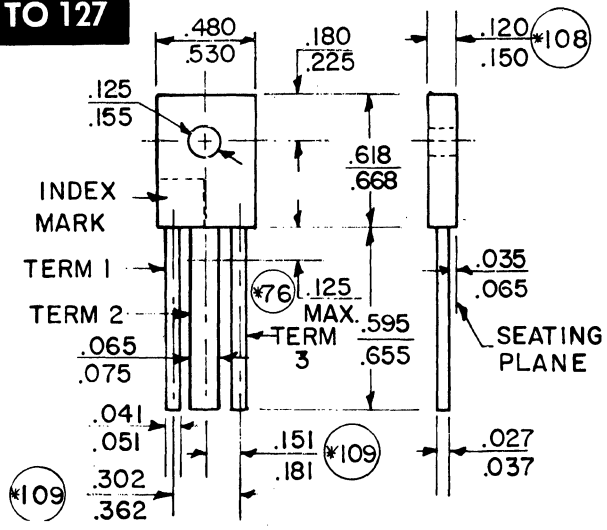


TO 126

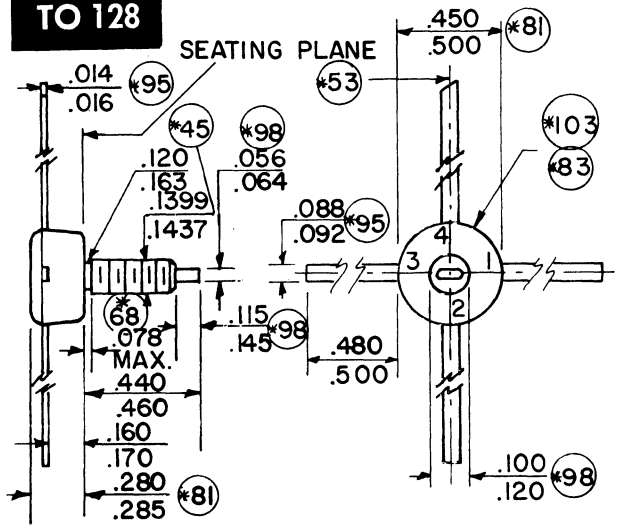


(*) INDICATES NOTE NUMBER AT END OF DRAWING SECTION

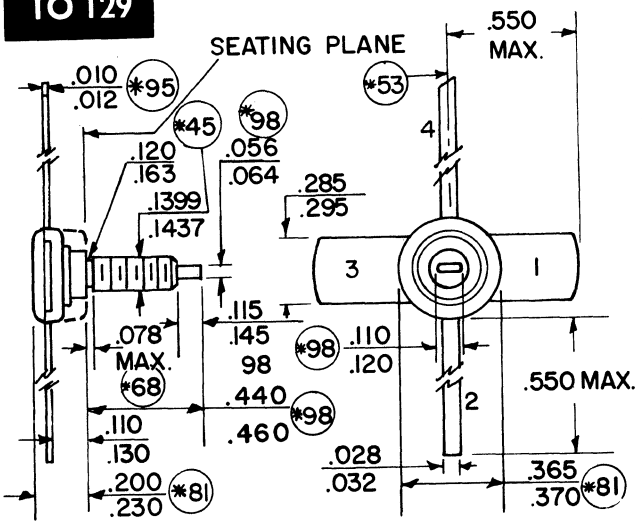
TO 127



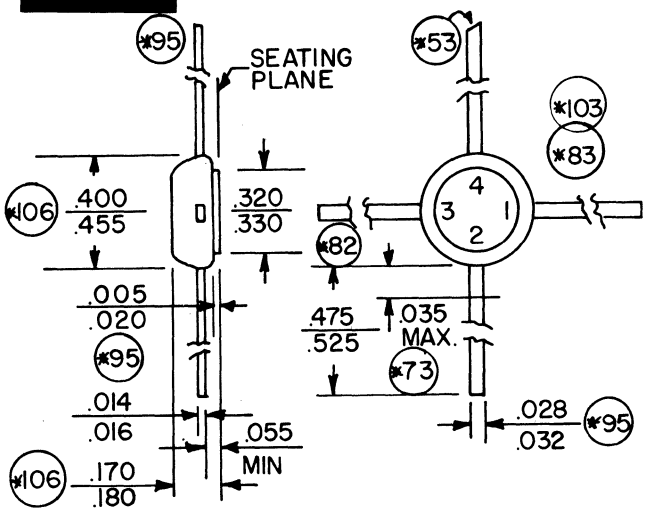
TO 128



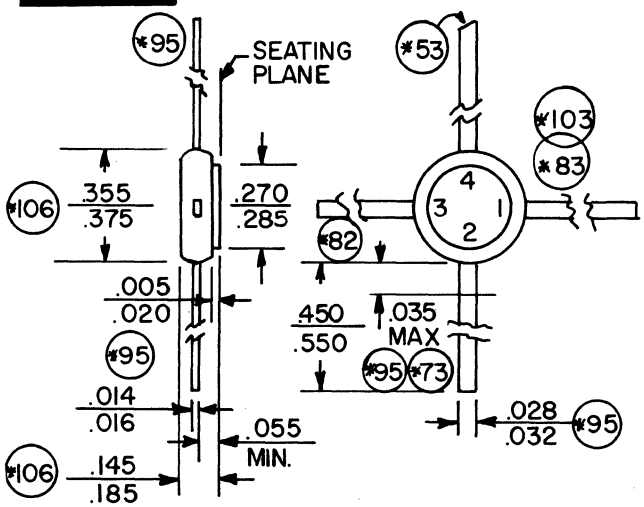
TO 129



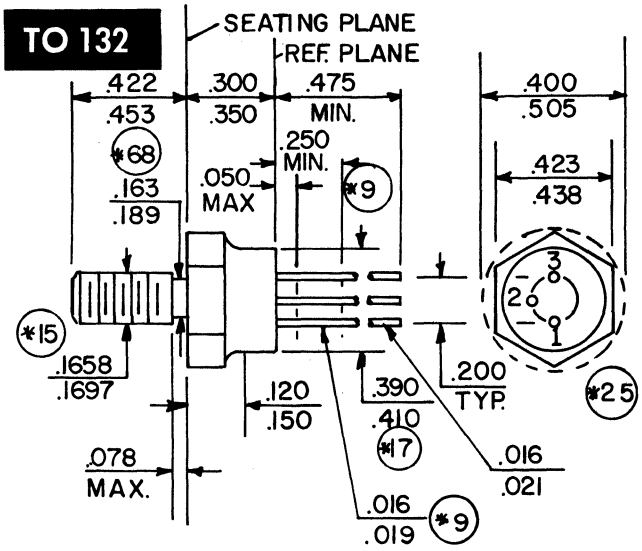
TO 130



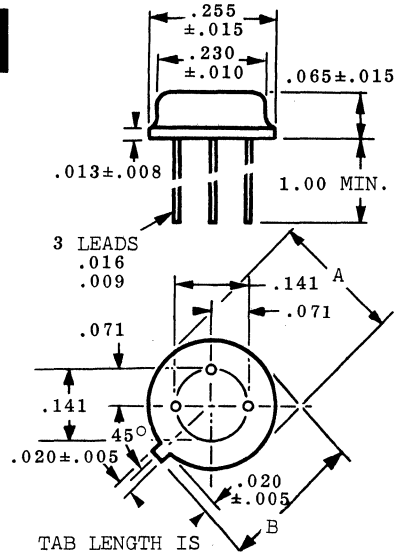
TO 131



TO 132

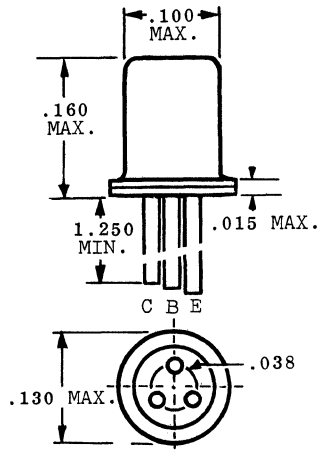


u 1

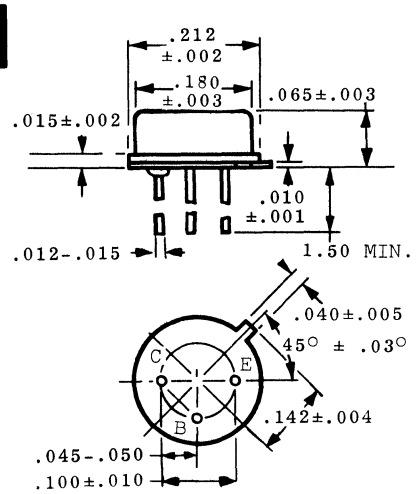


TAB LENGTH IS
DIMENSION B MINUS DIMENSION A.

u 2



u 3

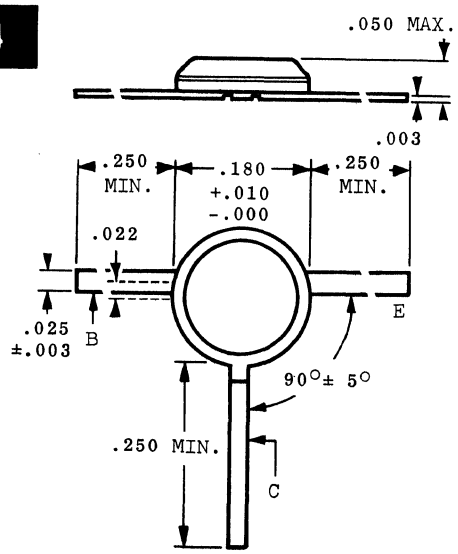


COLLECTOR TIED INTERNALLY TO CASE

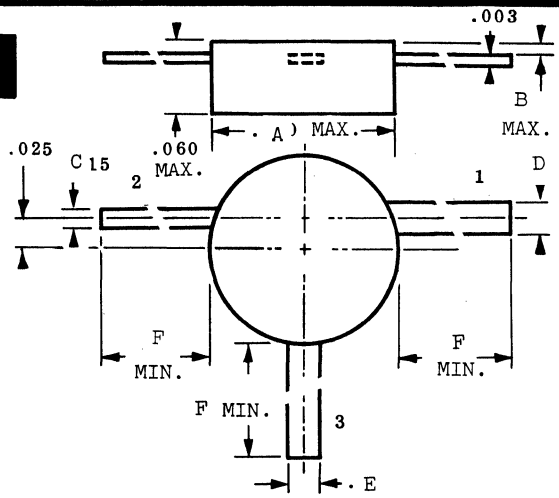
15. OUTLINE DRAWINGS

IN ORDER OF CASE NUMBER

u 4

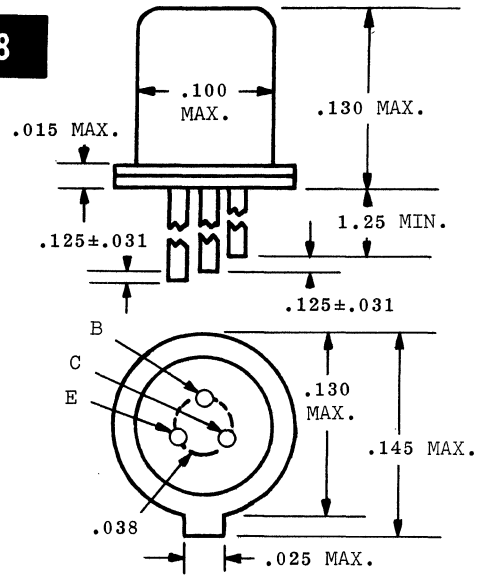


u 5

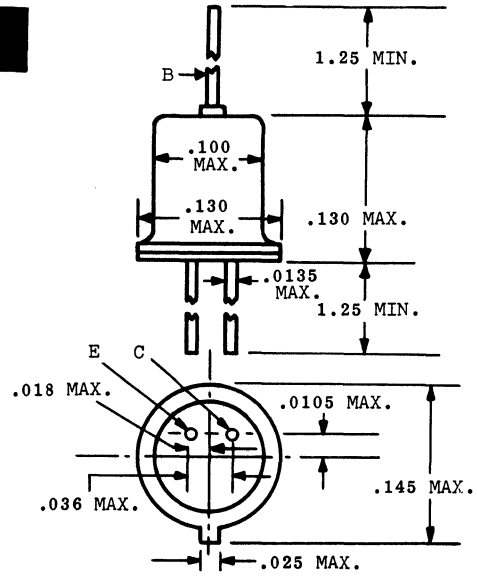


	A	B	C	D	E	F	LEADS 1	2	3
U5	.160	.020	.015	.025	.025	.500	E	B	C
U5a	.165	.030	.025	.023	.023	.250	E	B	C
U5b	.165	.030	.027	.024	.024	.250	E	B	C

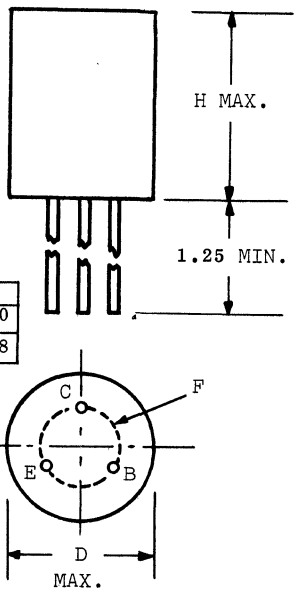
u 8



u 9

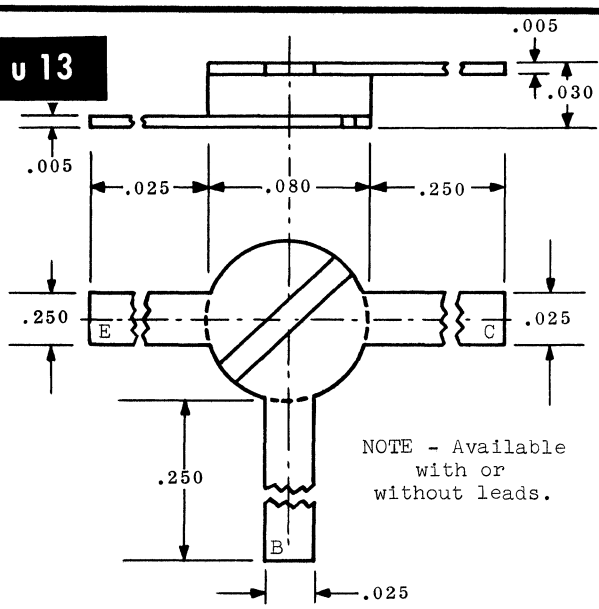


u 11
u 12



	D	H	F
u 11	.130	.160	.030
u 12	.100	.130	.038

u 13

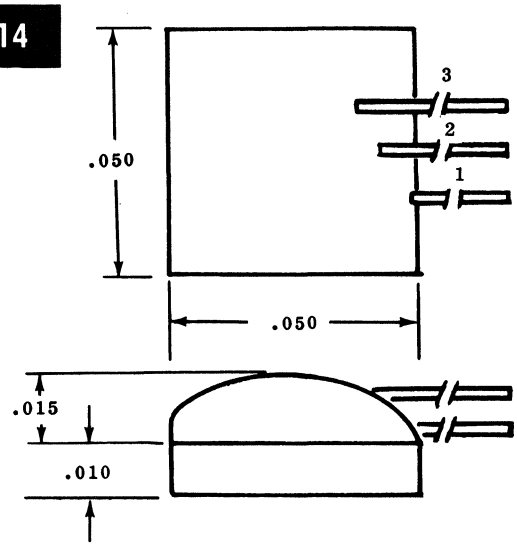


NOTE - Available with or without leads.

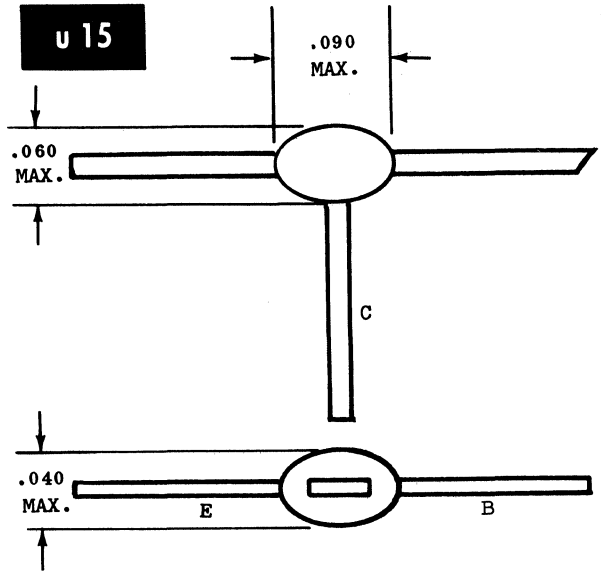
ALL DIMENSIONS IN INCHES

15. OUTLINE DRAWINGS

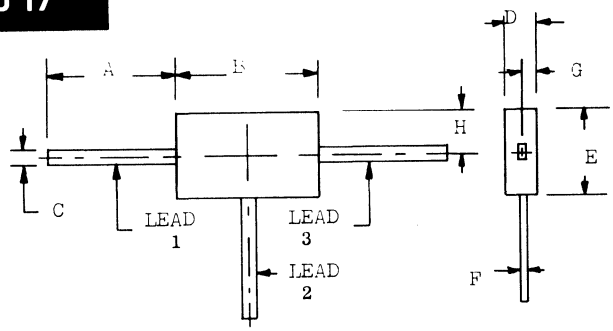
u 14



u 15

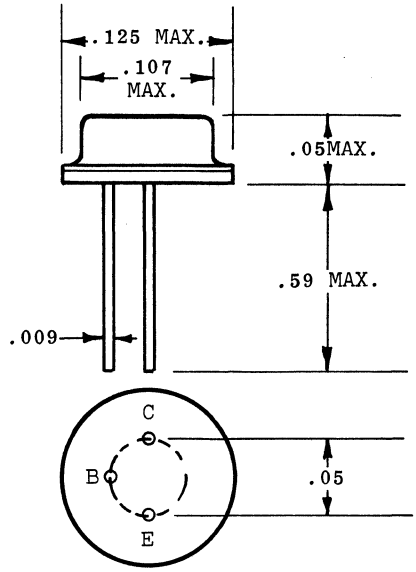


u 17

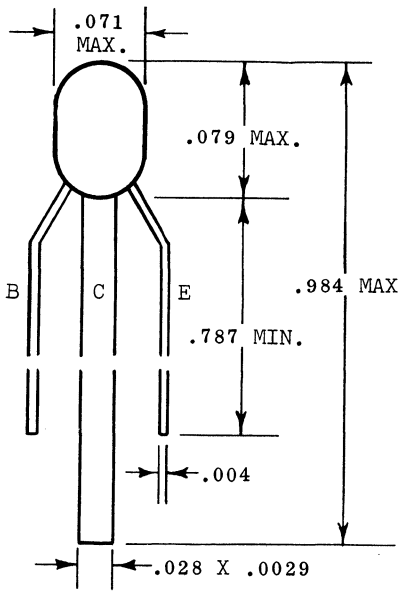


	A	B	C	D	E	F	G	H
U17	.525	.070	.015	.035 .050	.080	.025		
U17a	1.00	.078	.011	.045 .060	.078			
U17b	1.00 MIN	.083 .073	.010 .012	.045 .060	.073 .083	.003 .005	.030 .020	.035 .045
U17c	.260	.073	.013 .008	.020 .025	.073	.007 .004		.035 .037

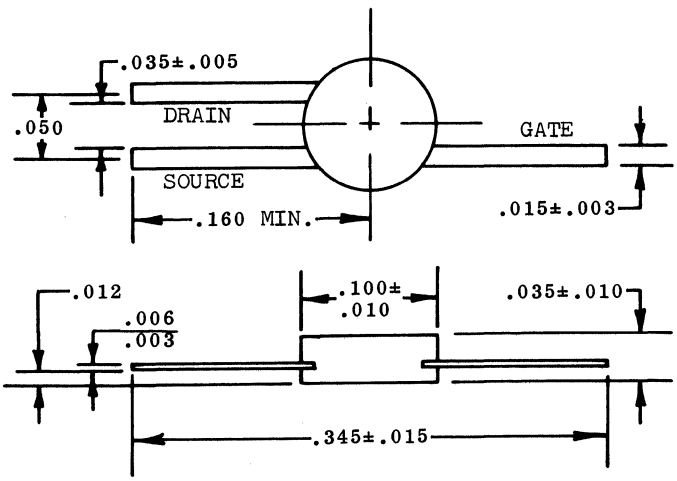
u 20



u 21



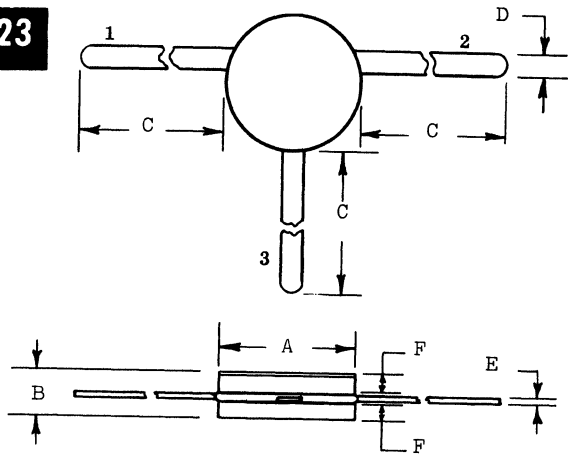
u 22



15. OUTLINE DRAWINGS

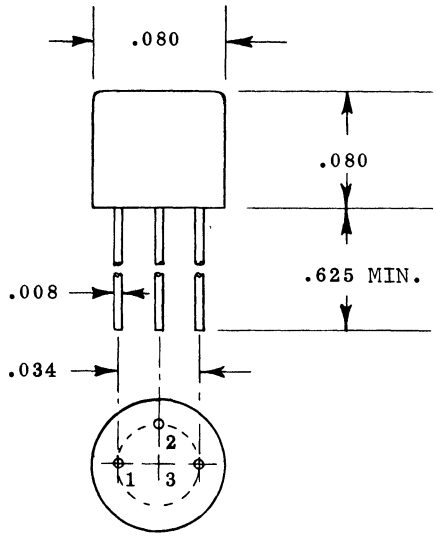
IN ORDER OF CASE NUMBER

u 23

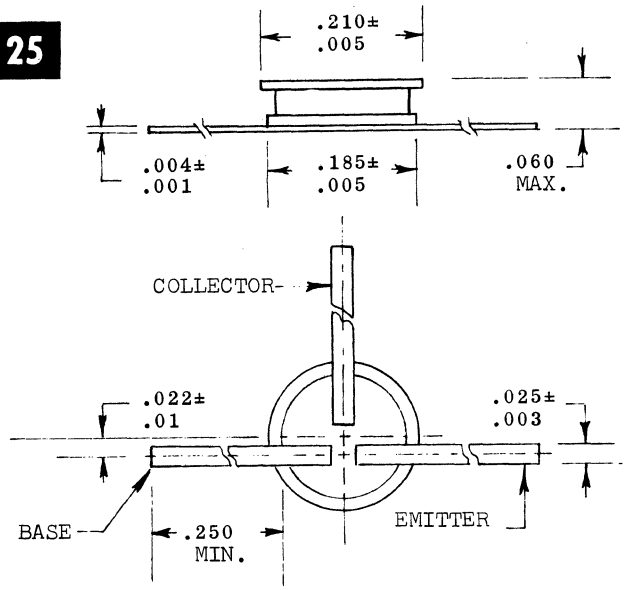


	A	B	C	D	E	F	1	2	3
u23	.138	.078	.158	.024	.003	.024	B	E	C
u23a	.150	.078	.158	.024	.003	.024	B	E	C
u23b	.138	.057	.181	.025	.005		S	D	G
u23c	.092	.058	.114	.016	.006				

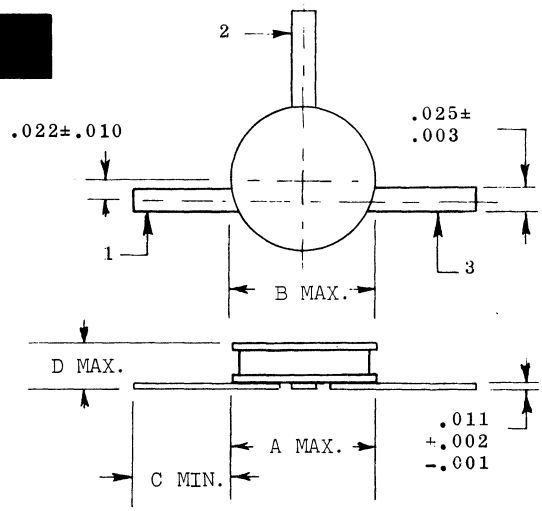
u 24



u 25

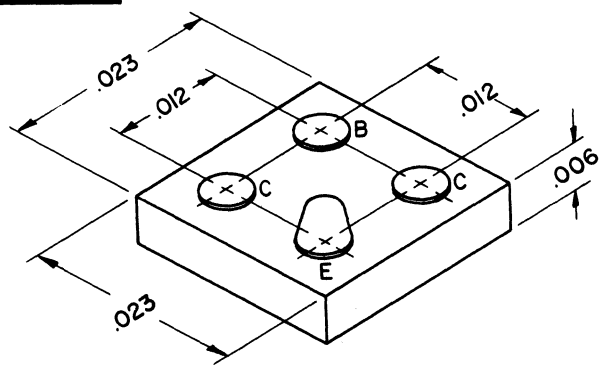


u 26



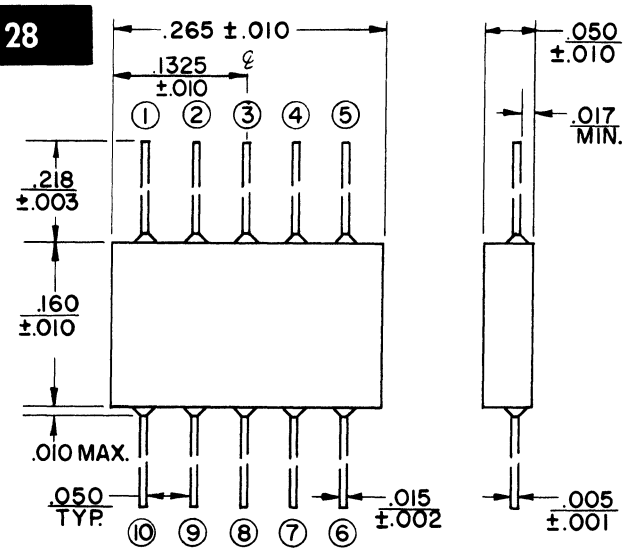
	A	B	C	D
u26	.192	.220	.100	.072
u26a	.190	.215	.250	.060

u 27

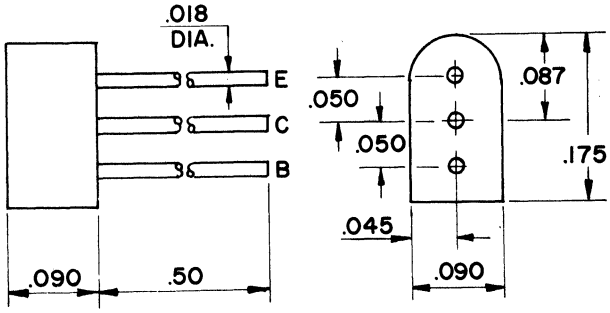


NOMINAL BUMP CONTACT HEIGHT IS .001"

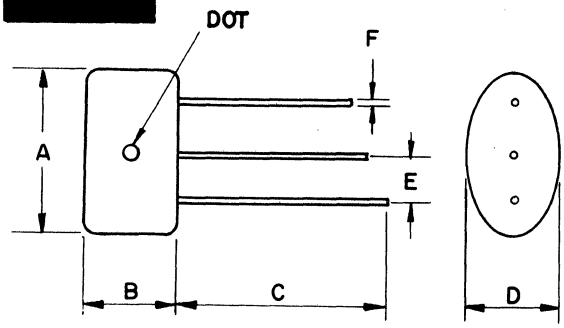
u 28



u 29

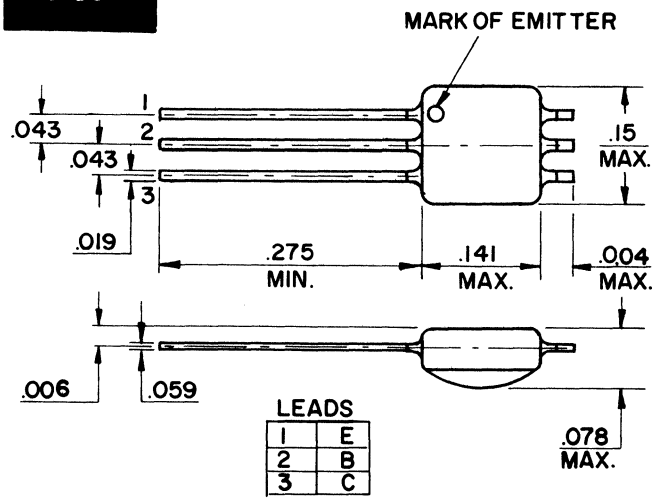


u 30



	A	B	C	D	E	F
u30	.137	.086	.177	.066	.059	.011 X .003
u30a	.059	.078	.196	.039	.023	.007X.003

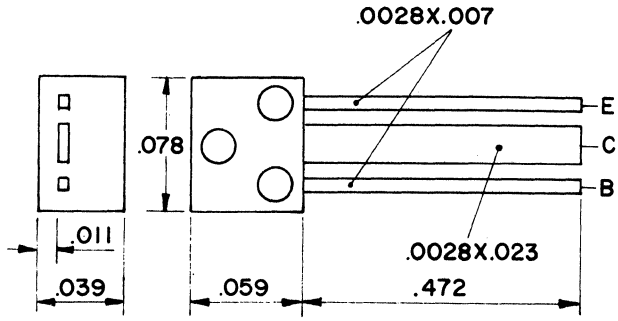
u 31



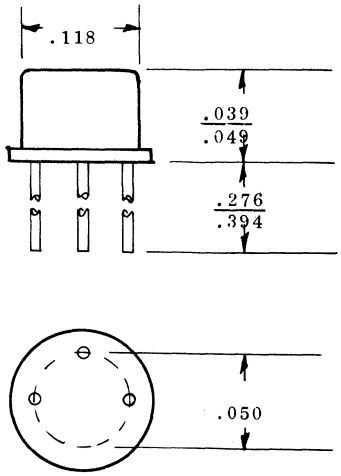
LEADS

1	E
2	B
3	C

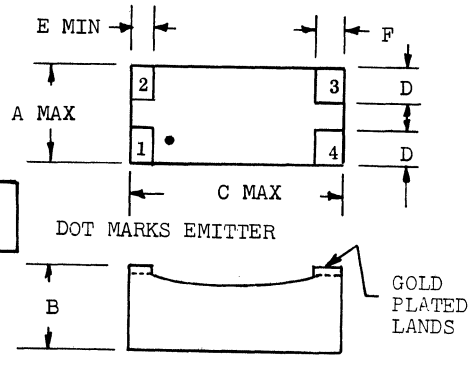
u 32



u 33



u 34



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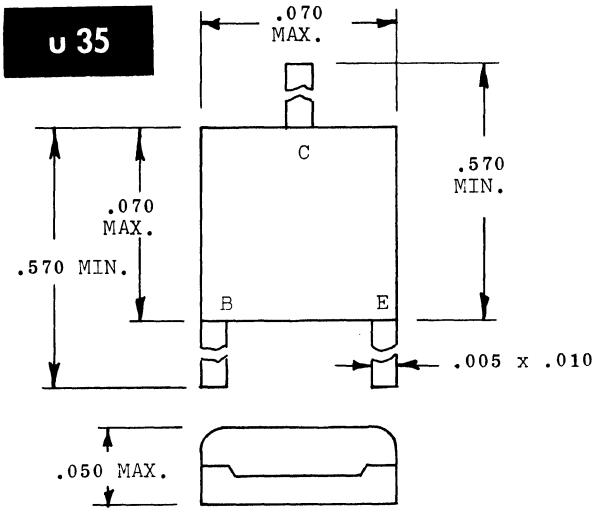
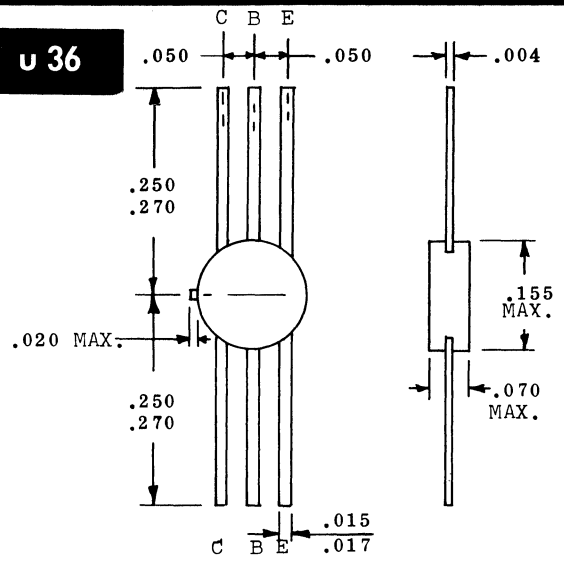
	A	B	C	D	E	F
u34	.042	.033	.078	.015	.009	.012
u34a	.055	.031	.074	.019	.007	.011

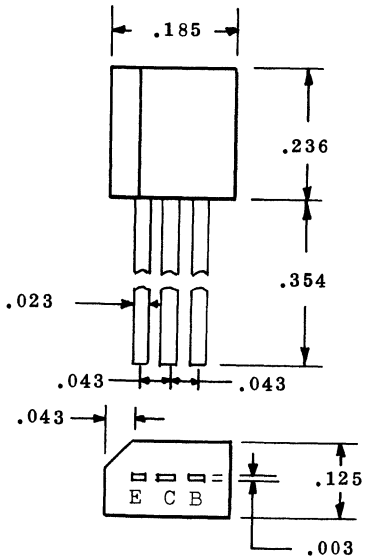
u 35



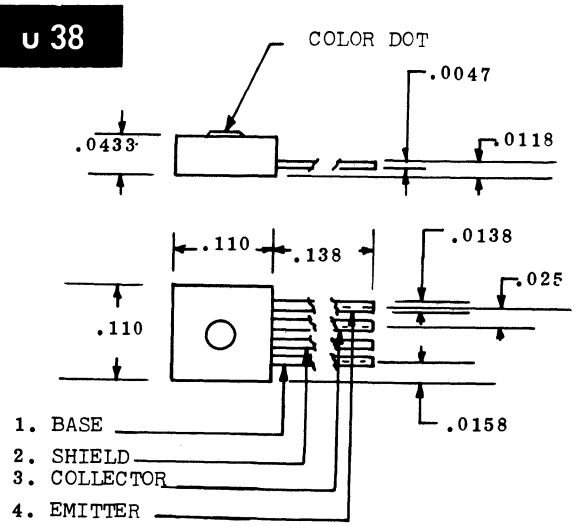
u 36



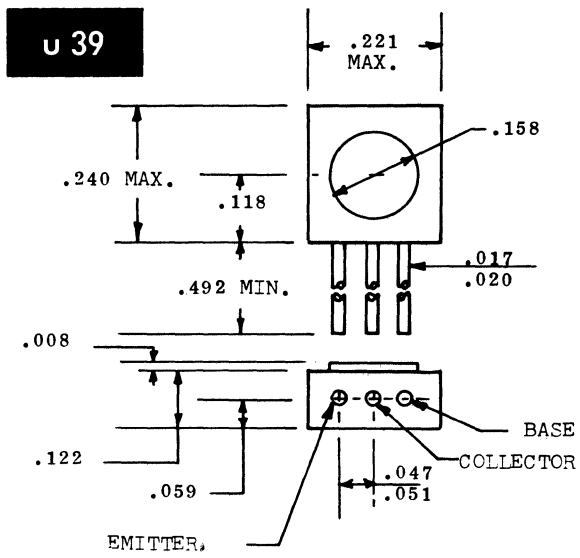
u 37



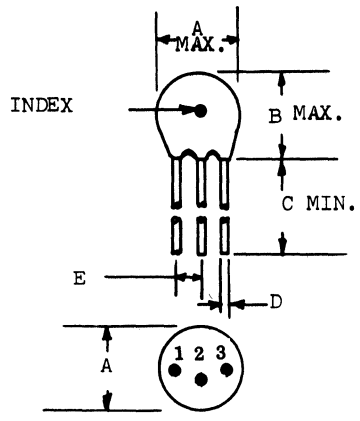
u 38



u 39

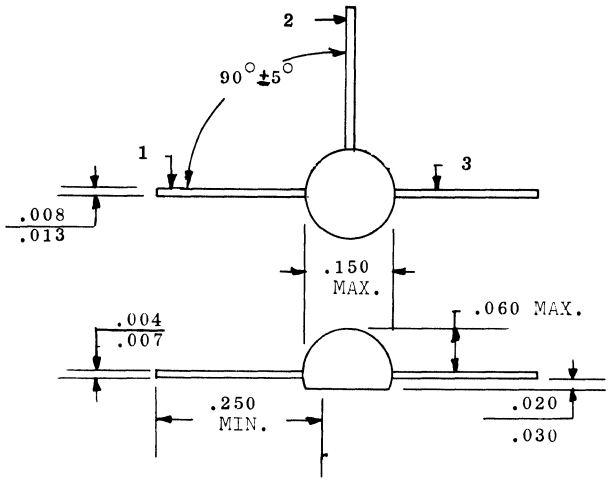


u 40

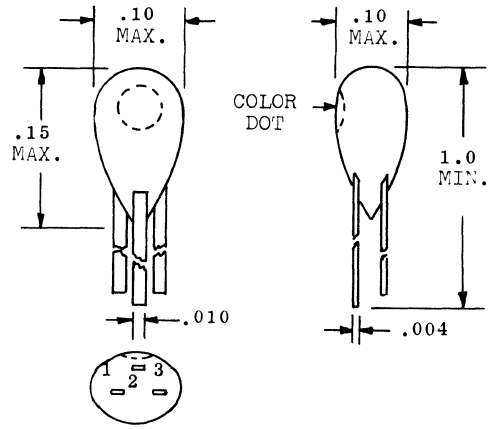


	A	B	C	D	E
u40	.070	.085	.400	.005	.025
u40a	.071	.078	.709	.008	.024
u40b	.070	.105	.400	.005	.025

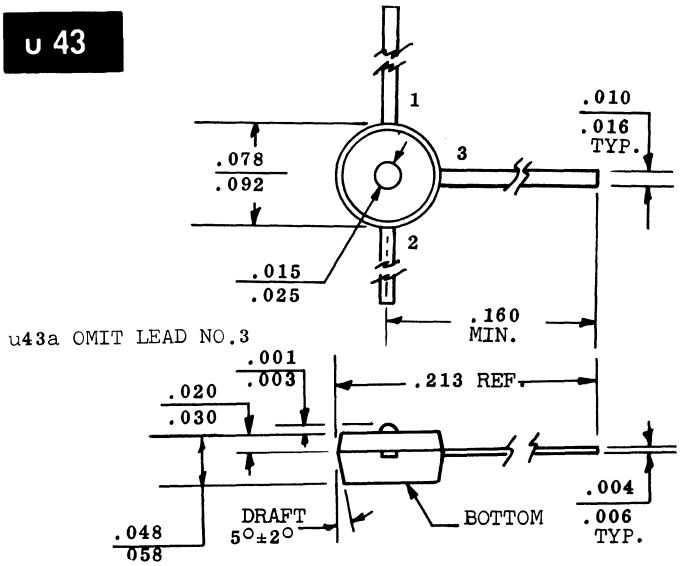
u 41



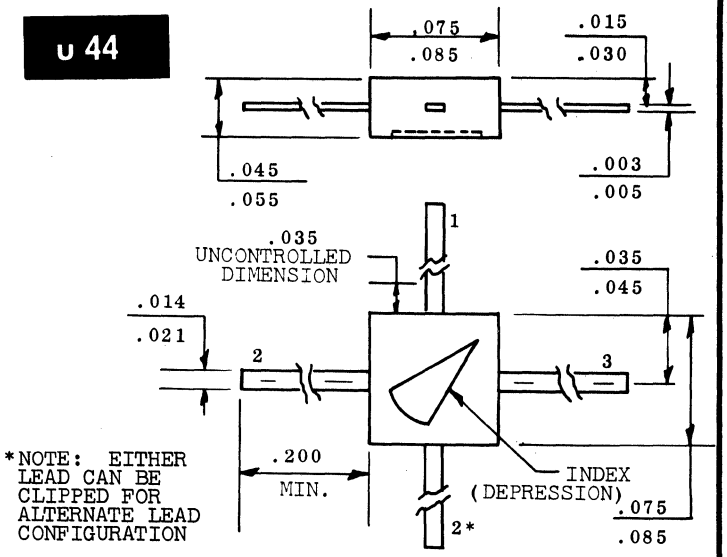
u 42



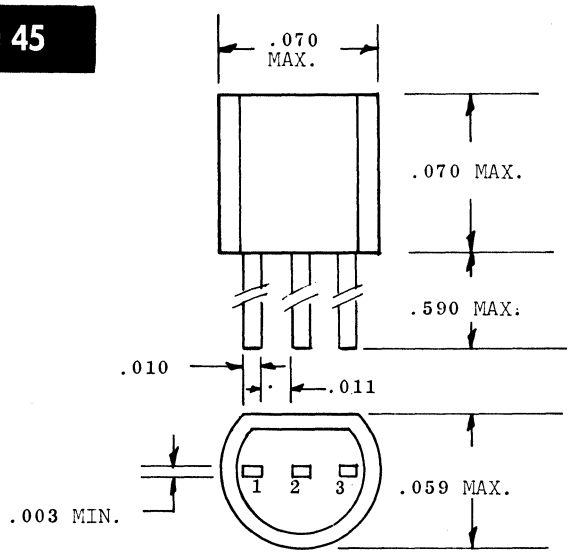
u 43



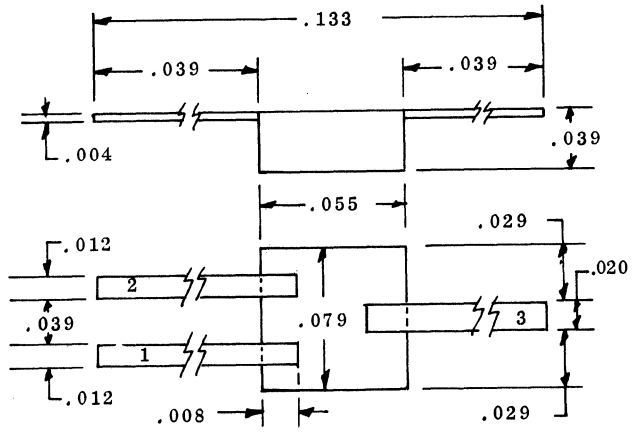
u 44



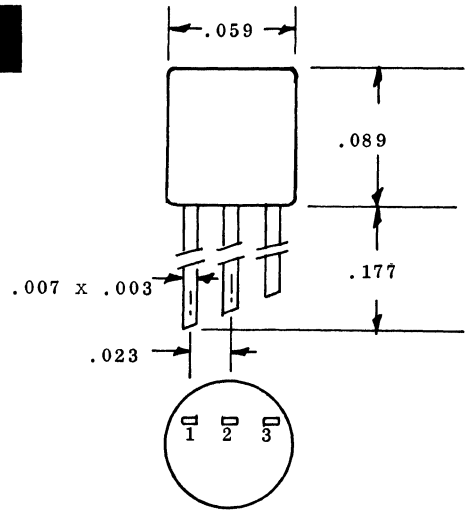
u 45



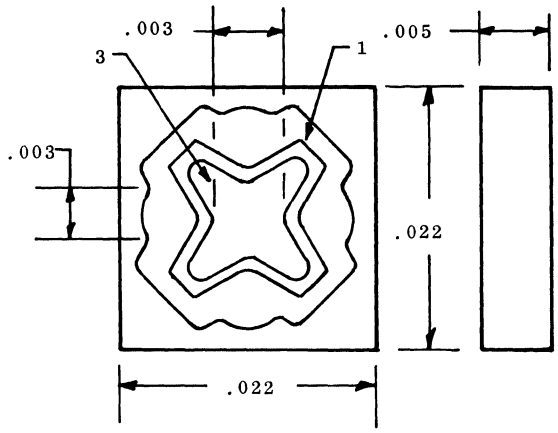
u 46



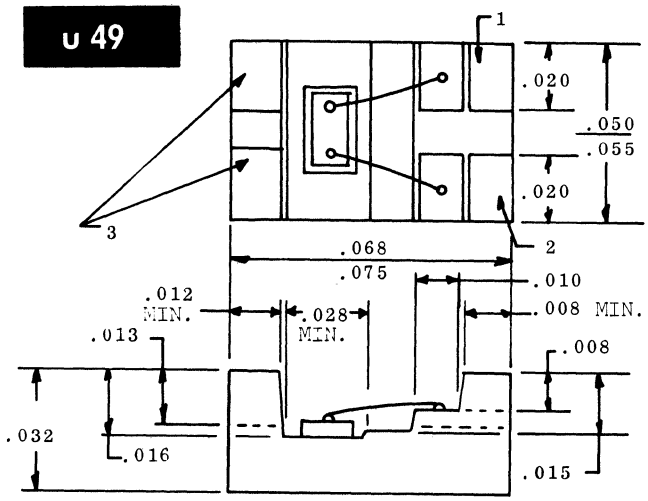
u 47



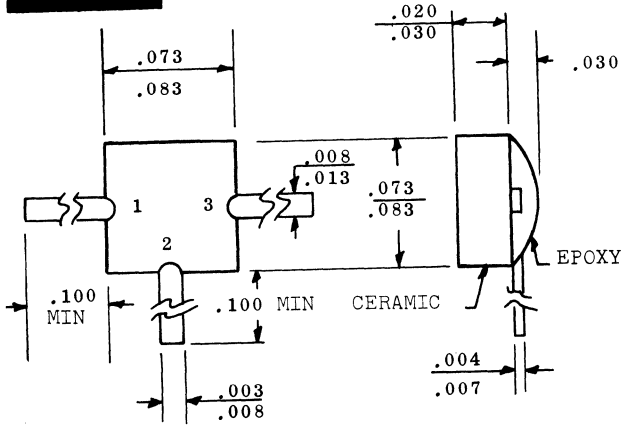
u 48



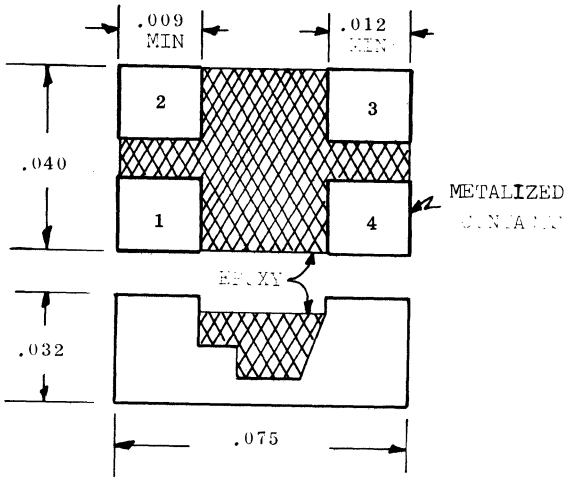
u 49



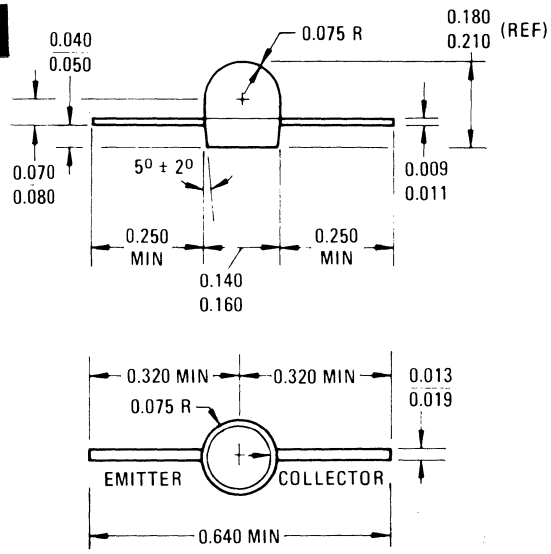
u 50



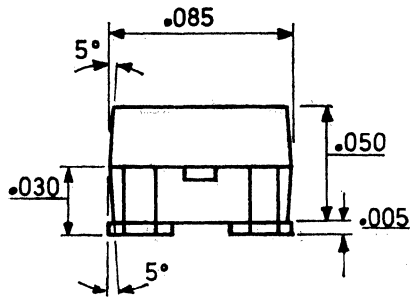
u 51

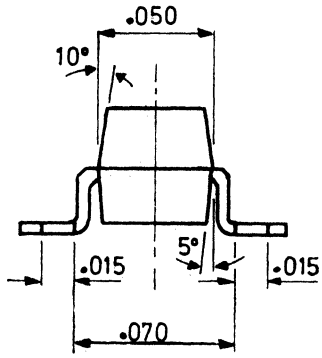


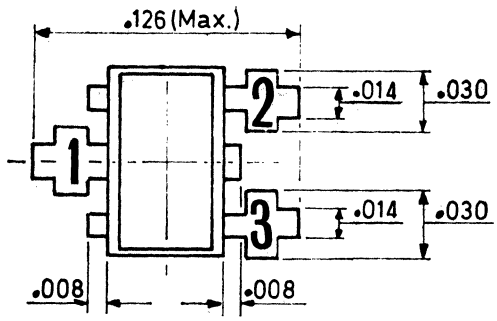
u 52



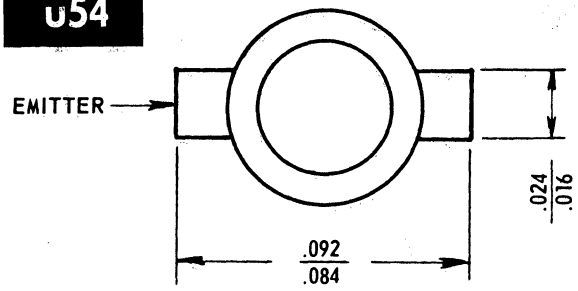
U53

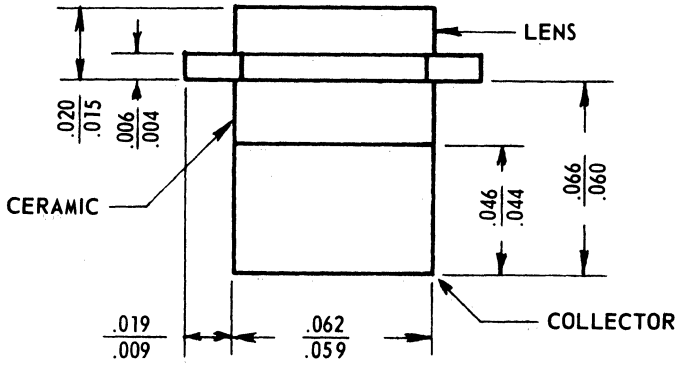




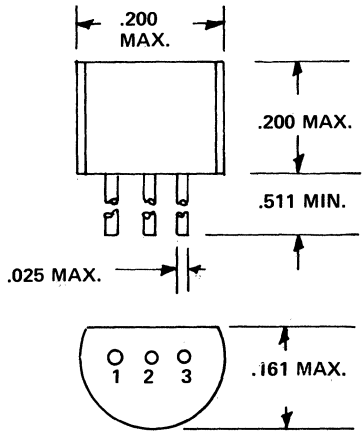


U54

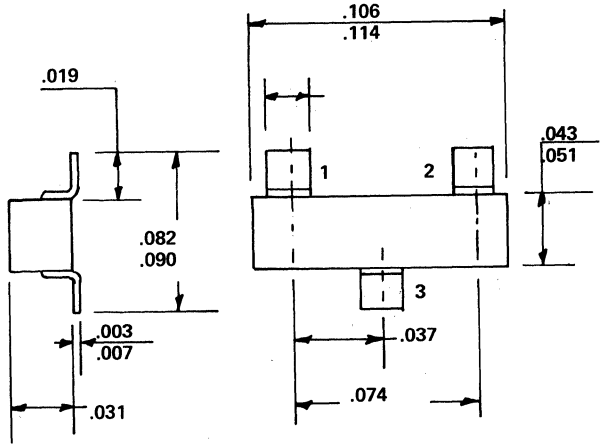




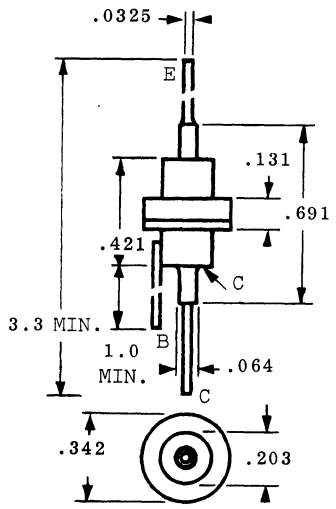
U55



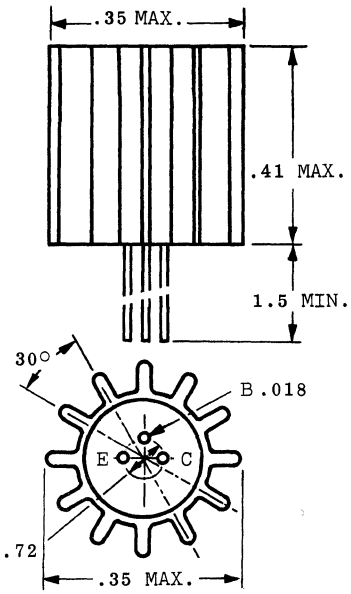
U56



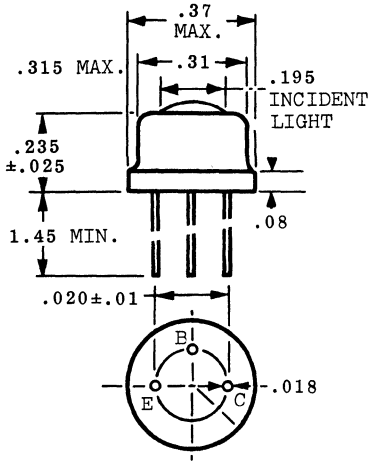
X 3



X 5

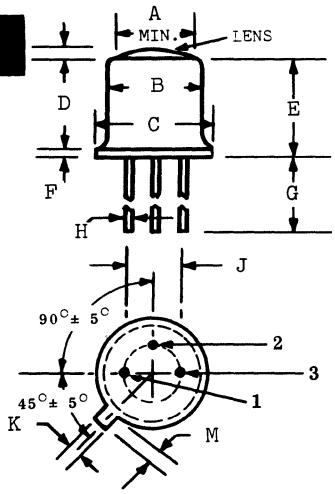


X 6



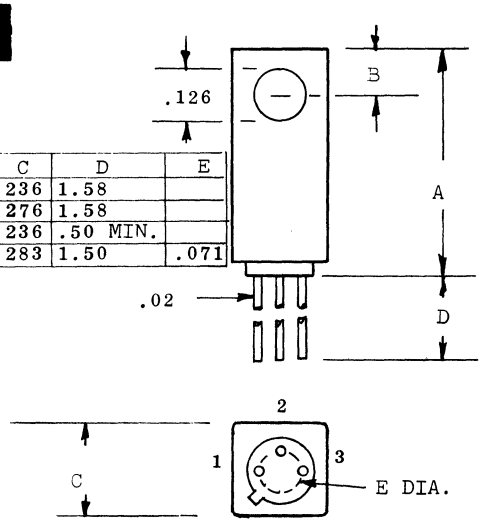
X 8

REVISED FALL 1968



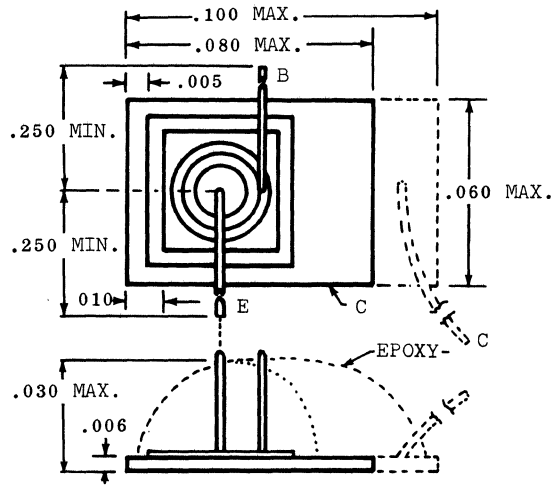
	A	B	C	D	E	F	G	H	J	K	M
X8	.110	.186	.220	.020	.190	.030	.500	.017	.100	.040	.038
X8a		.185	.216		.240		.531	.015	.098		
X8b		.1865	.2095		.291		.500 MIN	.0175	.100		
X8c	.228	.334	.370	.039	.260	.010	.500	.015	.200	.031	.043
X8d		.187	.220		.190	.030	1.50	.019	.100	.041	.042

X9



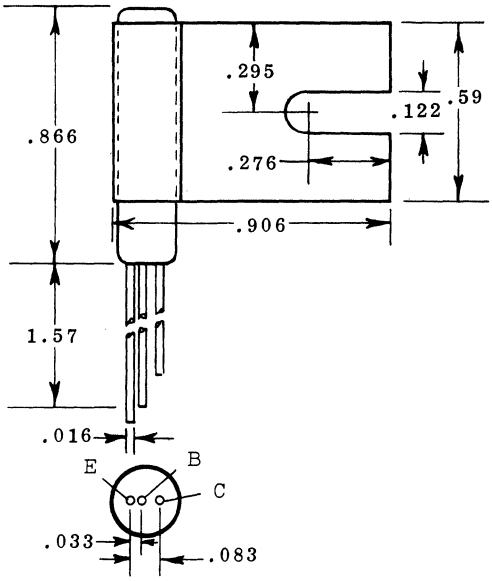
	A	B	C	D	E
X9	.670	.118	.236	1.58	
X9a	.610	.134	.276	1.58	
X9b	.670	.118	.236	.50 MIN.	
X9c	.618	.134	.283	1.50	.071

X 10



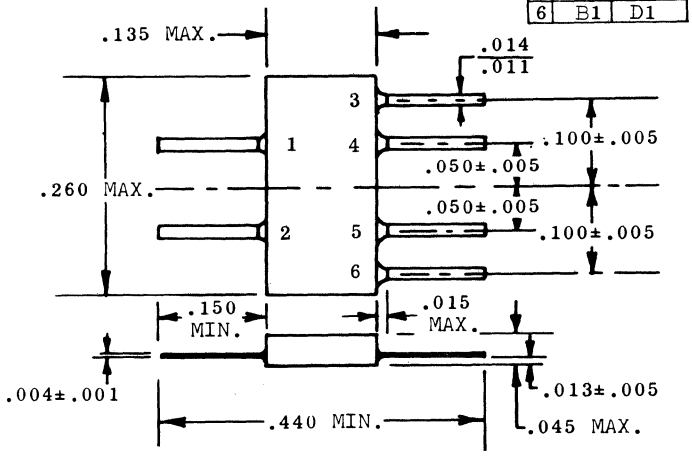
NOTE: 1. COLLECTOR COMMON WITH TAB.
2. AVAILABLE EITHER WITH 2 OR 3 LEADS.

X 12

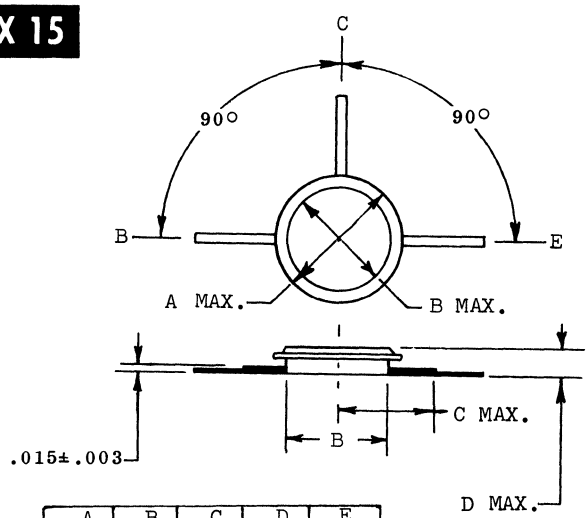


X 14

	X14	X14a
1	C2	G2
2	C1	G1
3	B2	D2
4	E2	S2
5	E1	S1
6	B1	D1

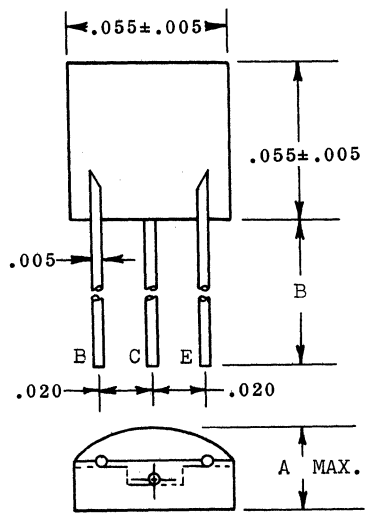


X 15



	A	B	C	D	E
X15	.680	.560	.675	.170	.020
X15a	.710	.700	.710	.200	

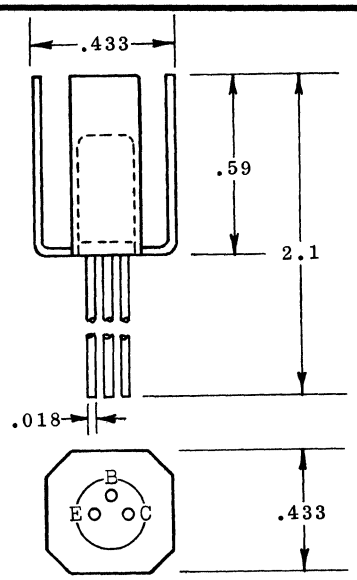
X 16



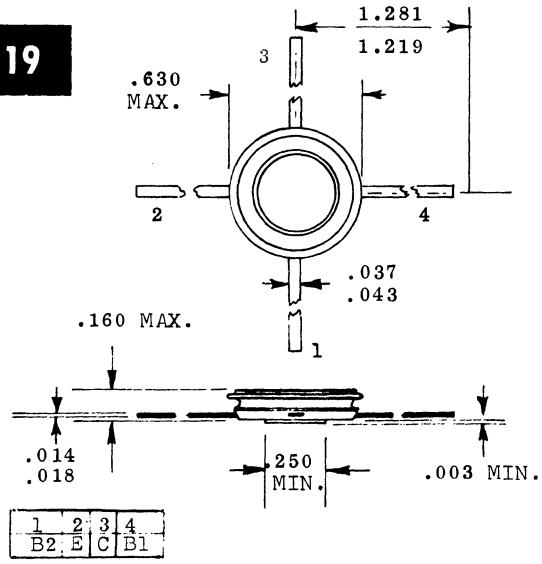
	A	B
X16	.036	1.0
X16a	.050	.50 MIN

NOTE: FOR X16a - DIMENSION B IS FOR B LEAD ONLY.
ADD .125 FOR COLLECTOR AND EMITTER LEADS.

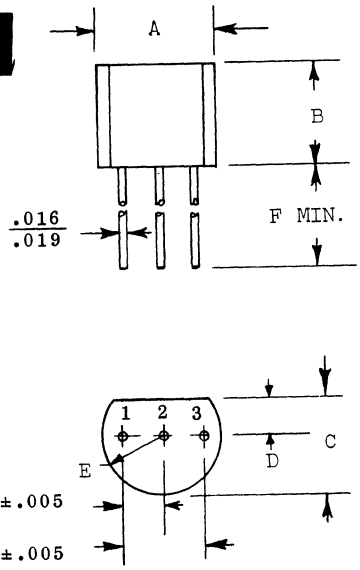
X 18



X 19

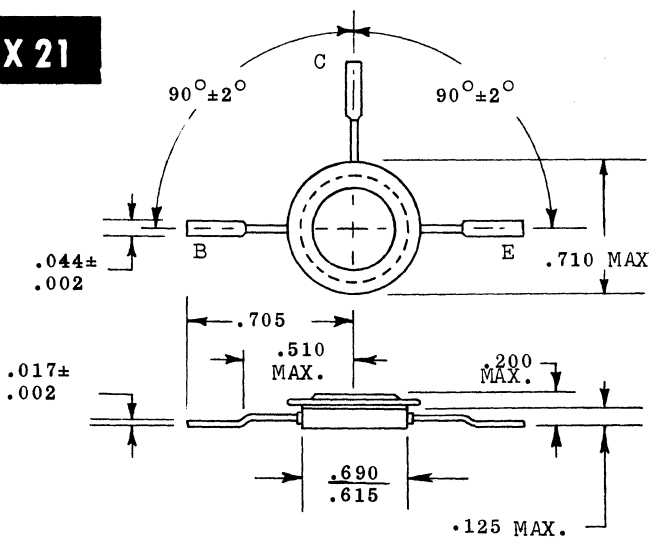


X 20



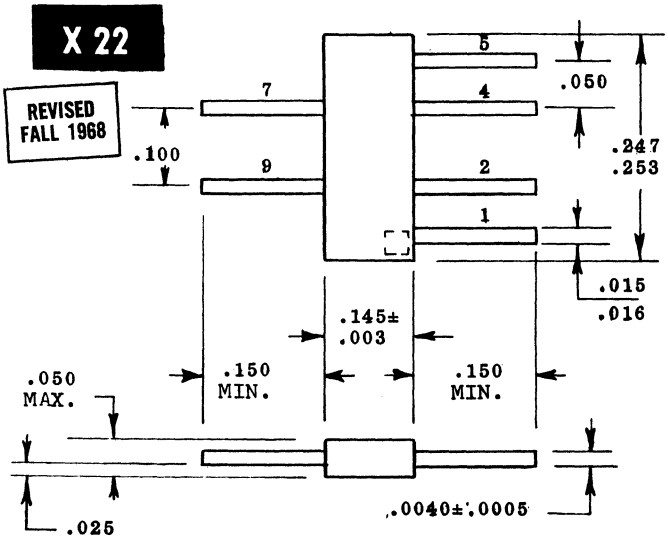
	A	B	C	D	E	F
X20	.200	.180 .210	.160	.095 .105	.095 .105	.500
X20a & b	.200	.180 .210	.160	.055 .065	.095 .105	.500
X20d		.175 .185		.045 .055	.085 .095	.500
X20e	.221	.241	.170	.060		.500
X20f	.175 .205	.170 .210	.125 .165		.020 .105	.450

X 21

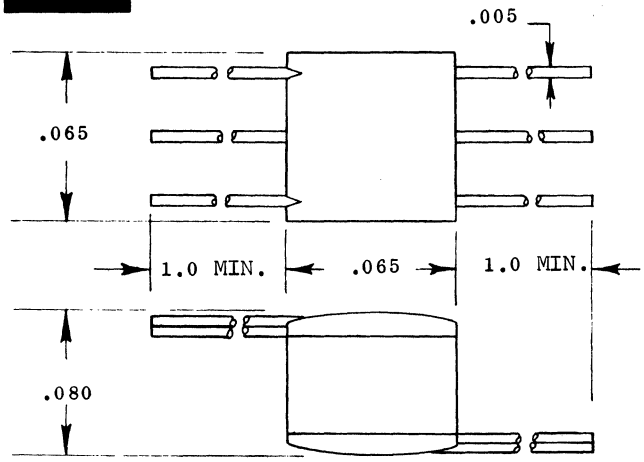


X 22

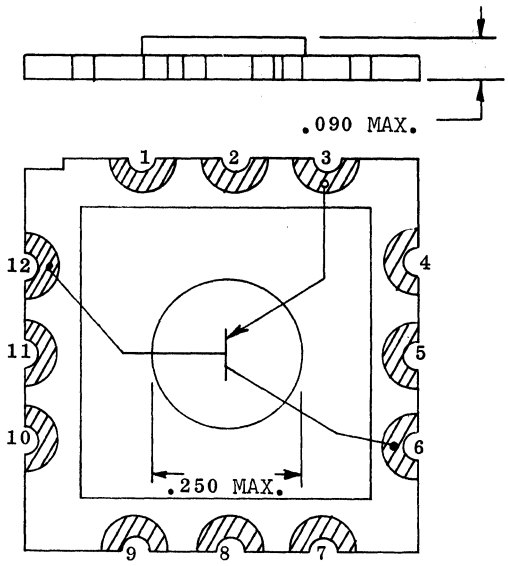
REVISED FALL 1968



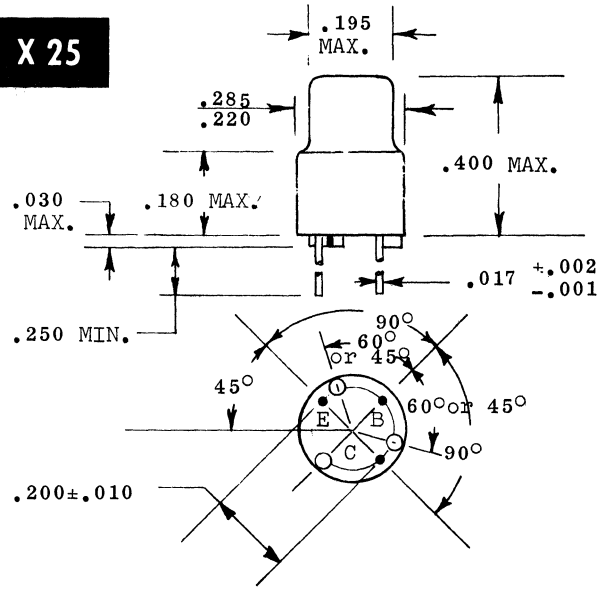
X 23



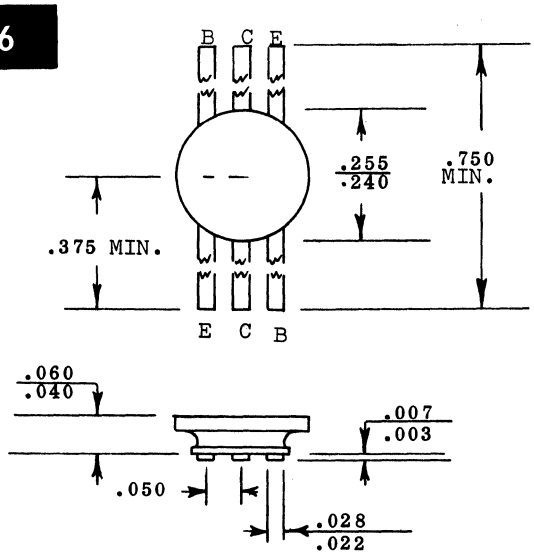
X 24



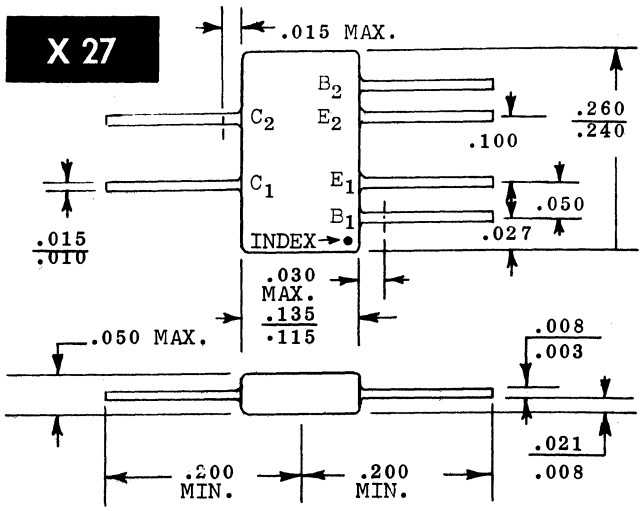
X 25



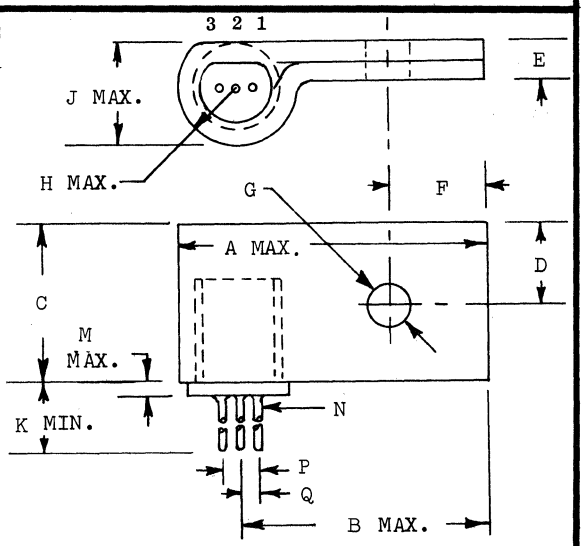
X 26



X 27

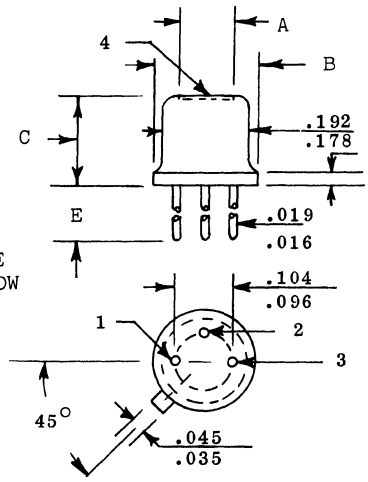


X 28



	A	B	C	D	E	F	G	H	J	K	M	N	P	Q
X28	.676	.520	.407	.156	.127	.187	.122	.156	.263	.500	.075	.017	.100	.050
X28a	.728	.551	.374	.187	.125		.118	.177	.295	.787		.016	.100	.050

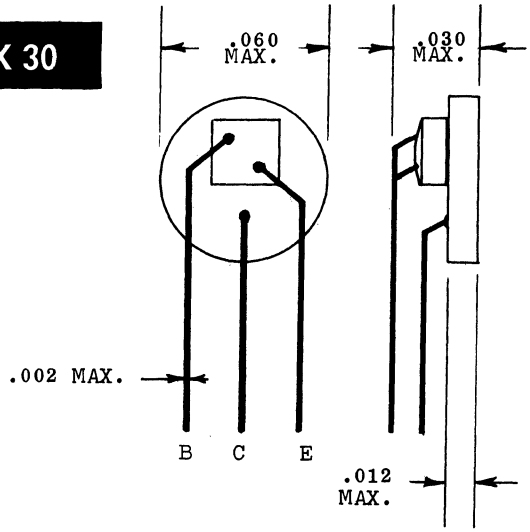
X 29



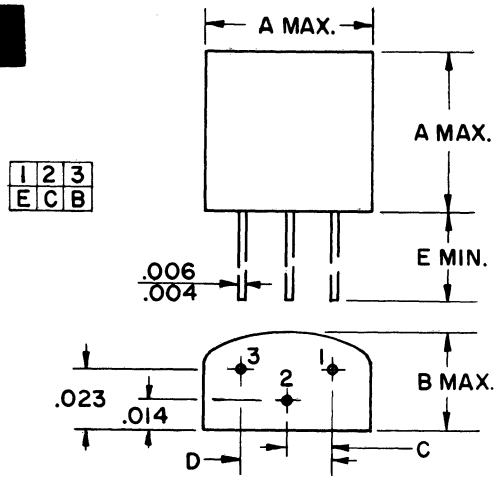
	1	2	3	4
X29	E	B	C	WINDOW
X29a	SOURCE	GATE	DRAIN	LENS
X29b	E	B	CASE	LENS

	A	B	C	D	E	
X29	.117 .123	.208 .220	.194 .202	.013	.500	MIN.
X29a	.117 .123	.208 .220	.194 .202	.013	.500	MIN.
X29b	.100	.208 .230	.271		.500 .590	

X 30

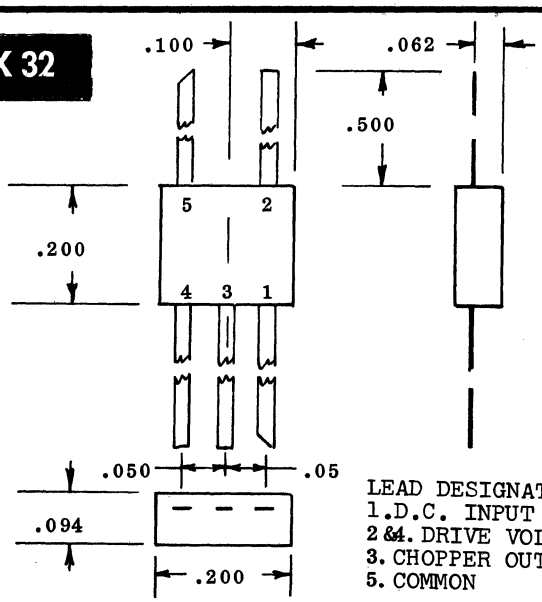


X 31



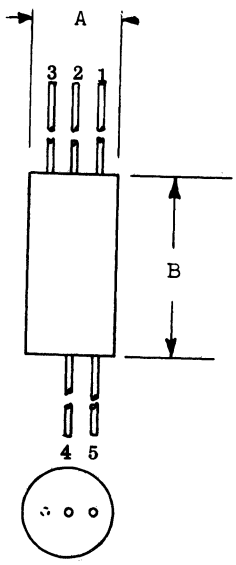
	A	B	C	D	E
X31	.065	.045	.024	.048	1.00
X31A	.060	.035	.020	.040	1.25
X31B	.060	.050	.020	.040	.50

X 32



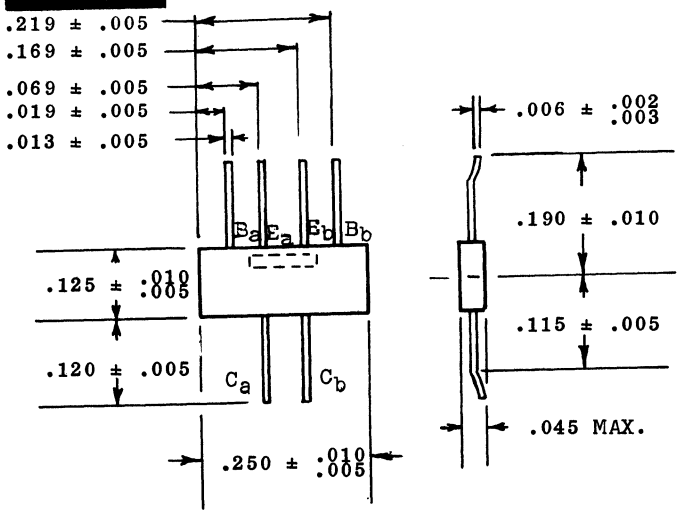
LEAD DESIGNATION
1.D.C. INPUT
2 &4. DRIVE VOLTAGE
3. CHOPPER OUTPUT
5. COMMON

X 33

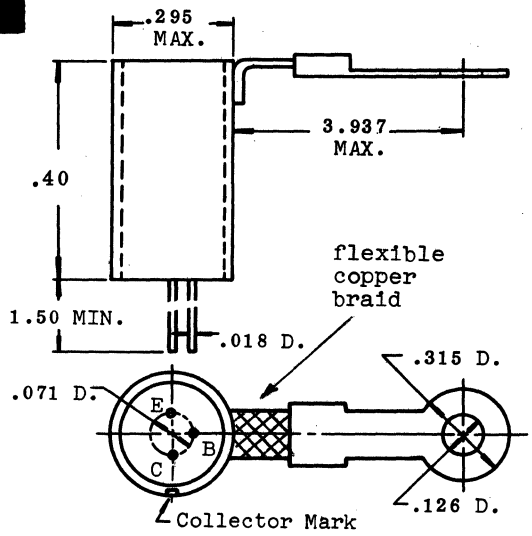


	A	B
x33	.13	.25
33a	.16	.38
b	.25	.50
c	.44	.70
d	.313	1.125
e	.45	1.25

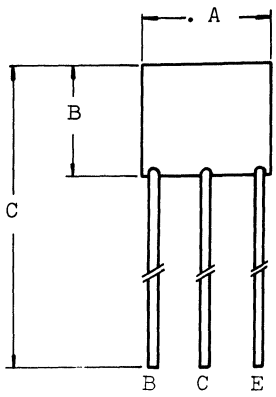
X 34



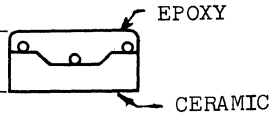
X 35



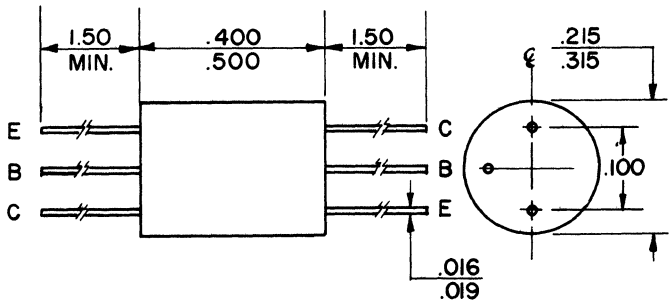
X 36



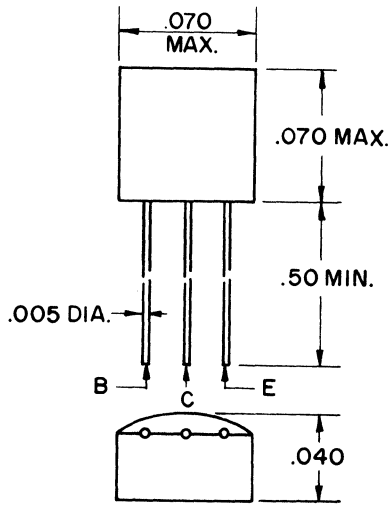
	A	B	C	D
X36	.090	.080	1.00	.045
X36a	.060	.060	1.31	.035
X36b	.070	.070	1.00	.035



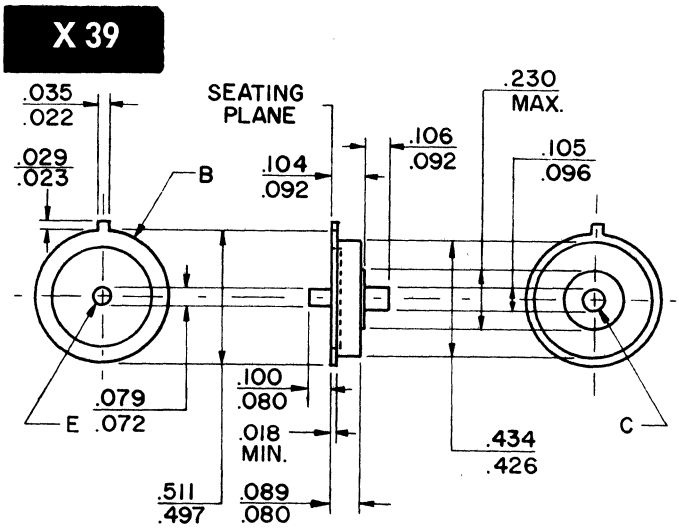
X 37



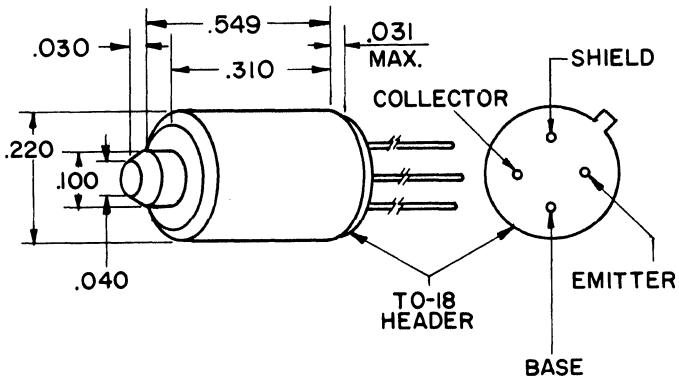
X 38



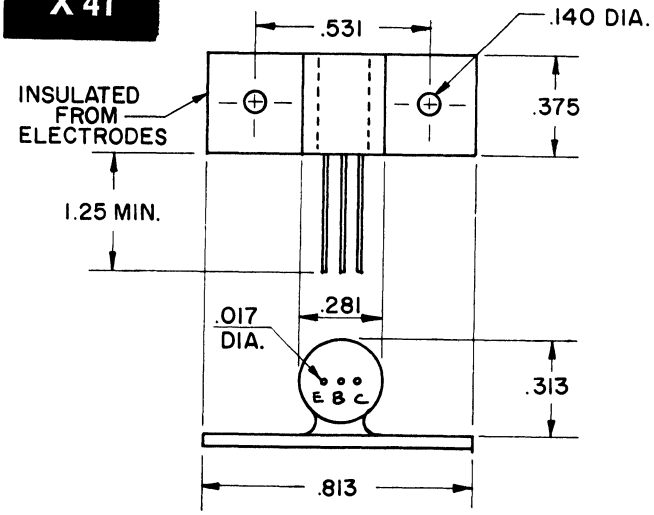
X 39



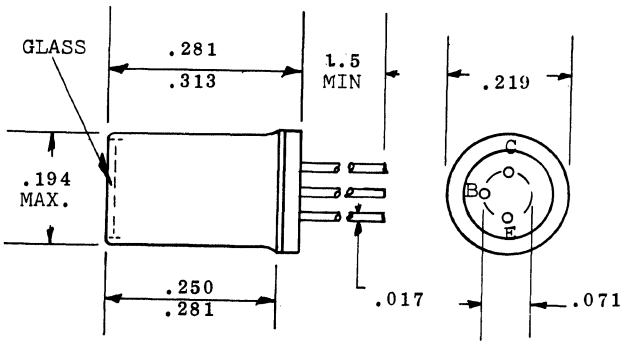
X 40



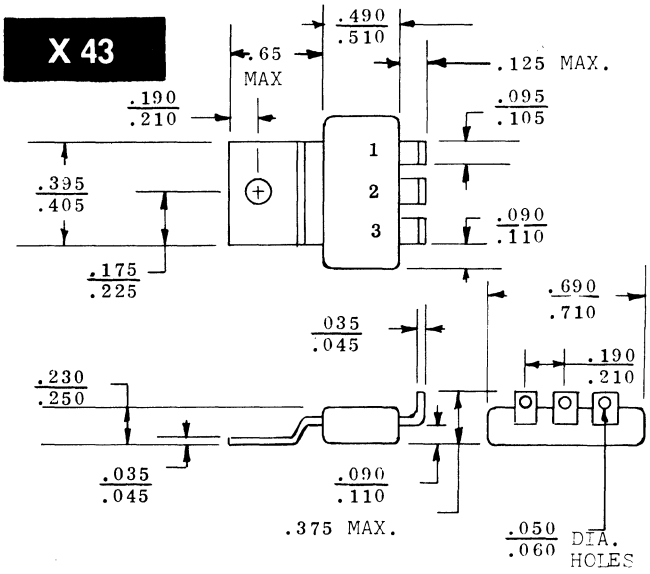
X 41



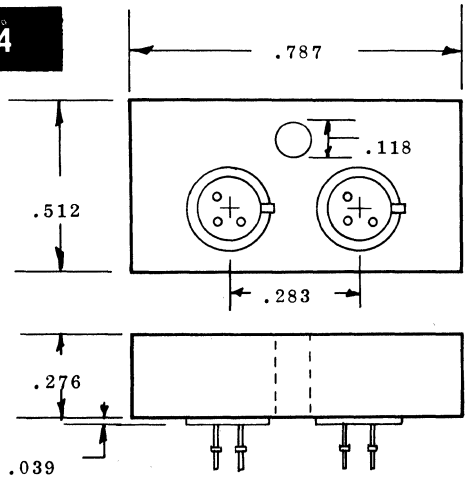
X42



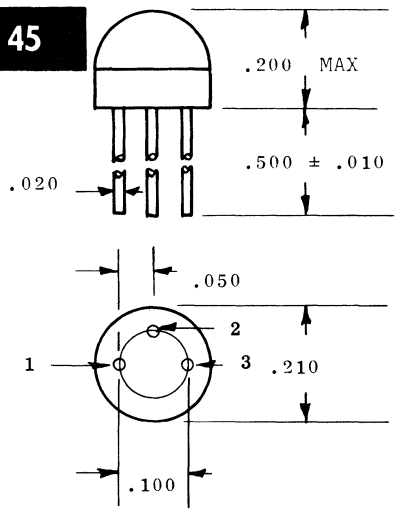
X 43



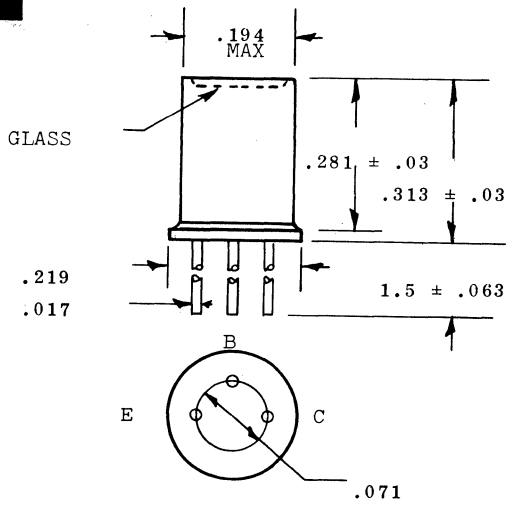
X 44



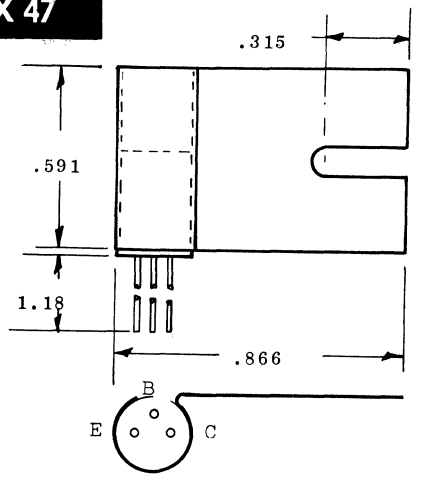
X 45



X 46

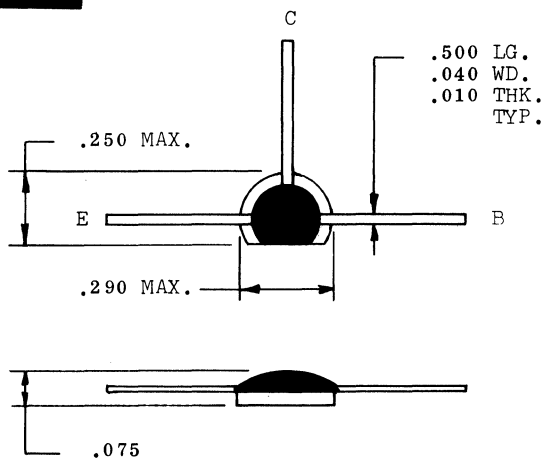


X 47

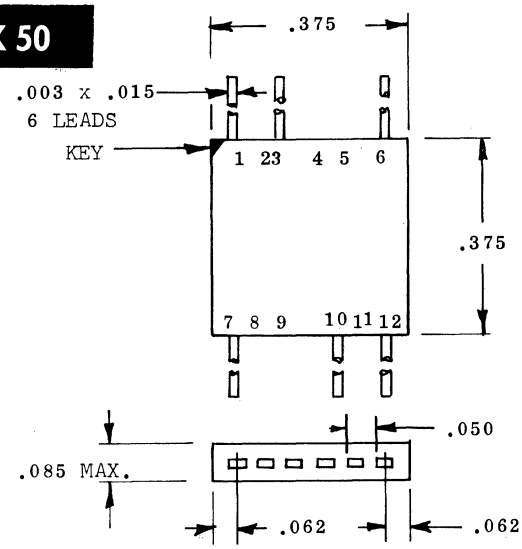


TO1 OUTLINE
WITH MOUNTING CLIP

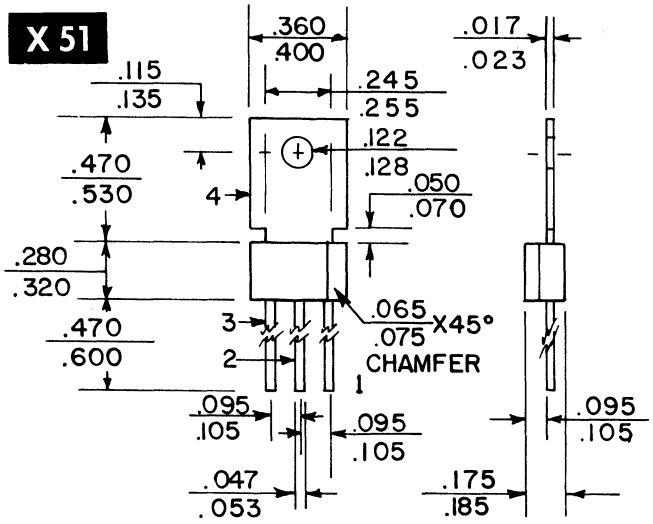
X 48



X 50

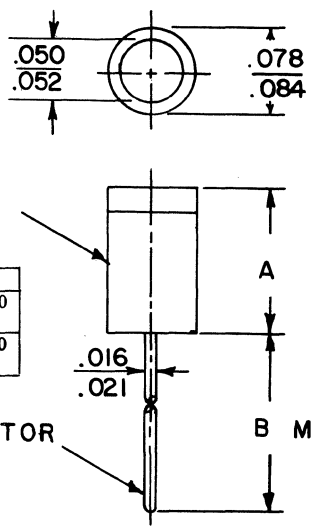


X 51



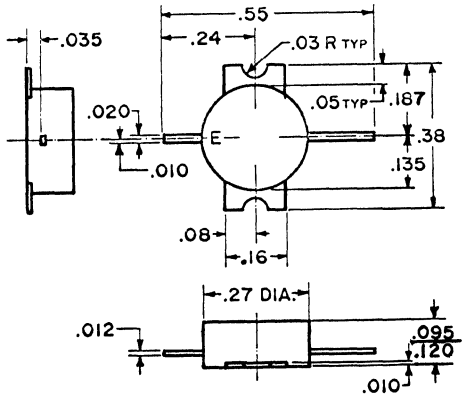
X 52

REVISED
FALL 1968

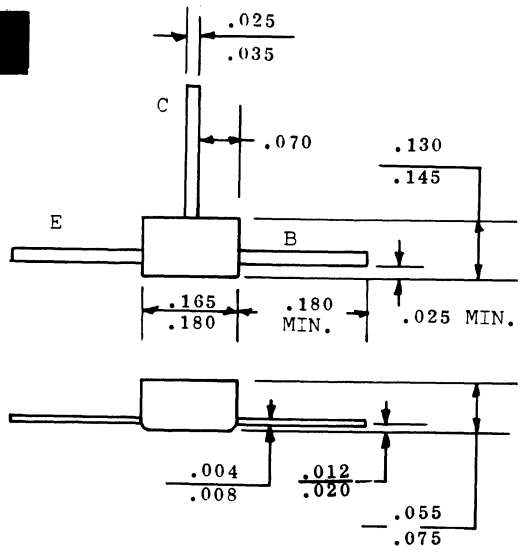


	A	B
X52	.166 .180	.450
X52a	.078 .089	.400

X 53

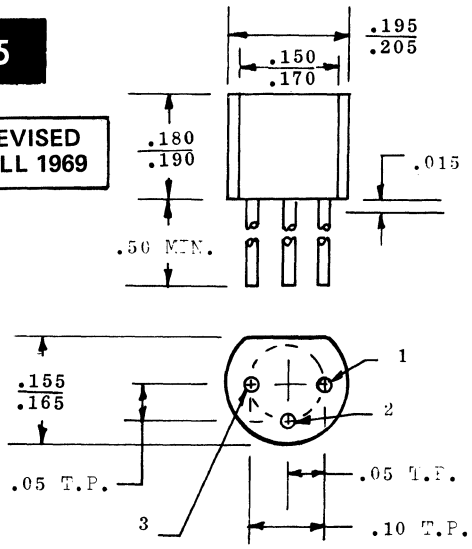


X 54

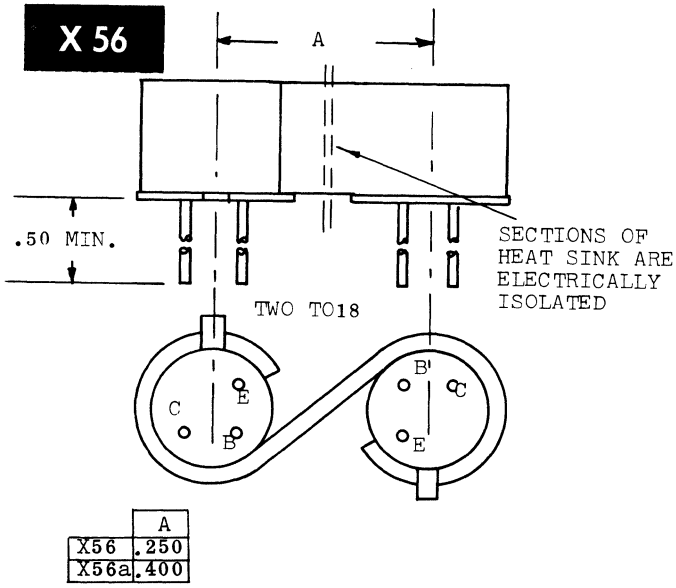


X 55

REVISED FALL 1969



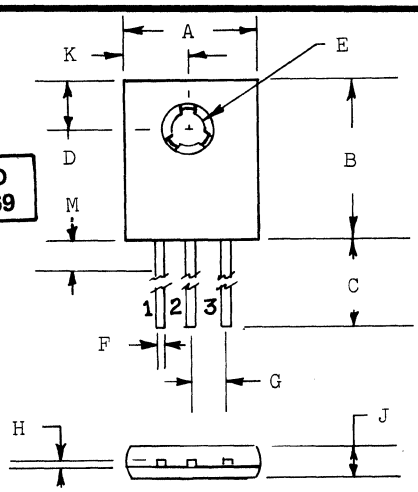
X 56



	A
X56	.250
X56a	.400

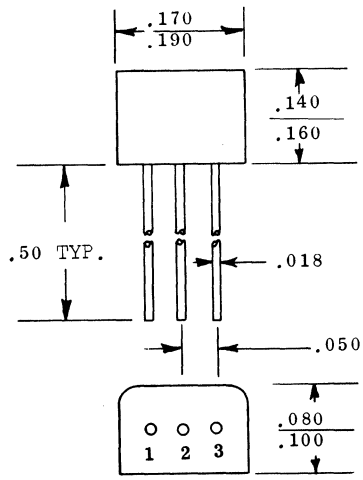
X 58

REVISED FALL 1969

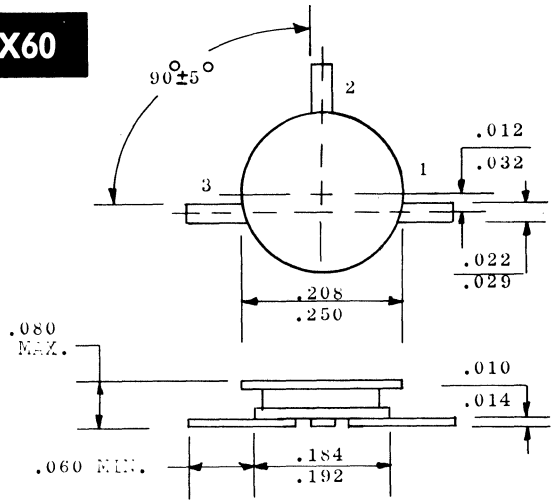


	A	B	C	D	E	F	G	H	J	K	M
X58	.270 .330	.390 .450	.595 .655	.148	.115 .118	.020 .026	.090	.017 .023	.070 .130	.150	
X58a	.490 .520	.628 .658	.590 .650	.190 .196	.138 .148	.043 .049	.166 TYP	.030 .034	.120 .150		.125max

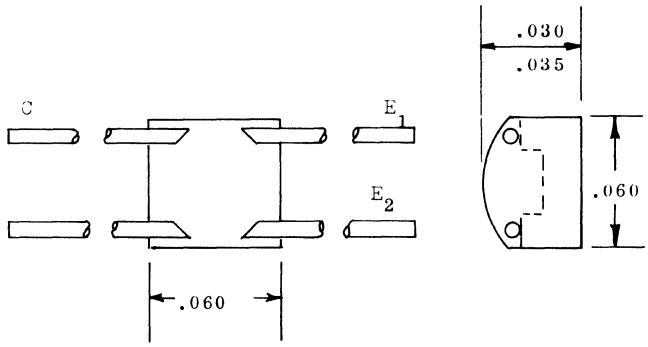
X 59



X60

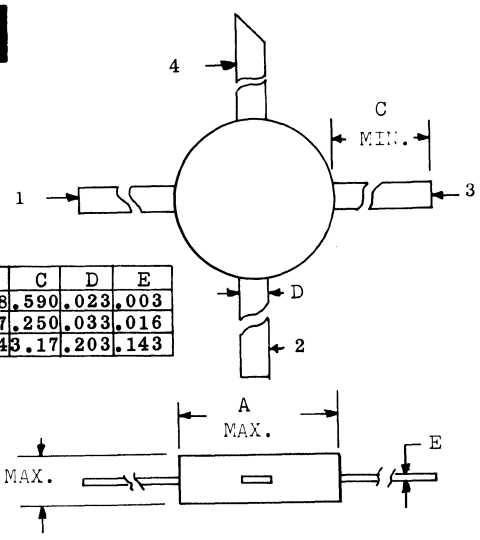


X62



X63

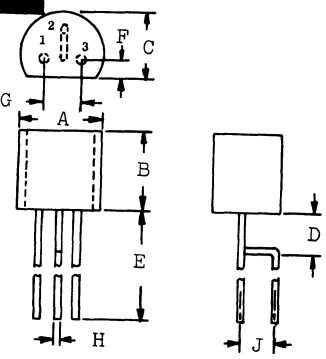
REVISED FALL 1968



	A	B	C	D	E
X63	1.57	.078	.590	.023	.003
X63a	.394	.177	.250	.033	.016
X63b	2.41	1.04	3.17	.203	.143

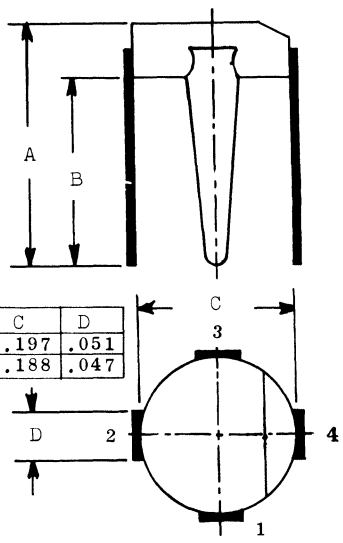
X 64

REVISED SPRING 1969



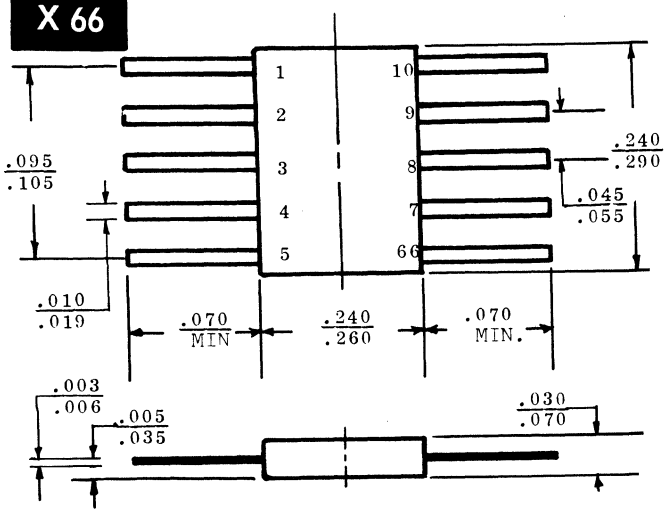
	A	B	C	D	E	F	G	H	J
X64	.197	.197	.157	.087	.492	.059	.098	.020	.048
X64a	.175 .205	.170 .210	.125 .165	.050	.500		.095 .105	.016 .019	.050

X 65

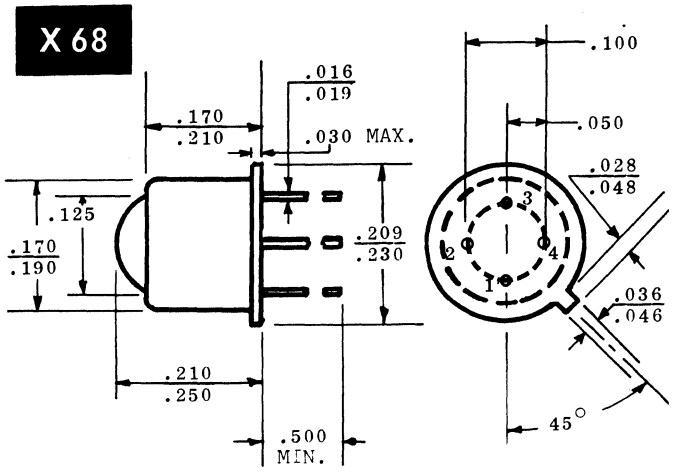


	A	B	C	D
X65	.260	.173	.197	.051
X65a	.275	.177	.188	.047

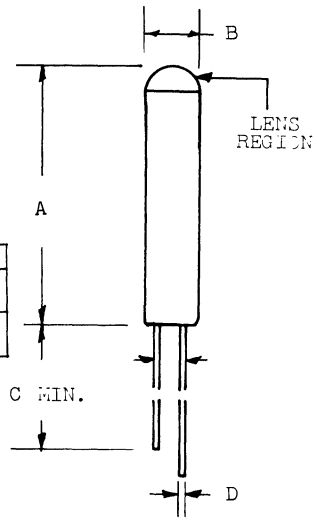
X 66



X 68

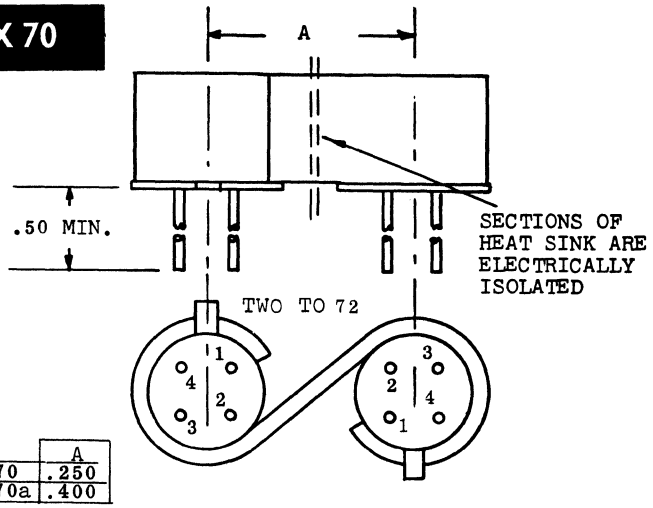


X 69



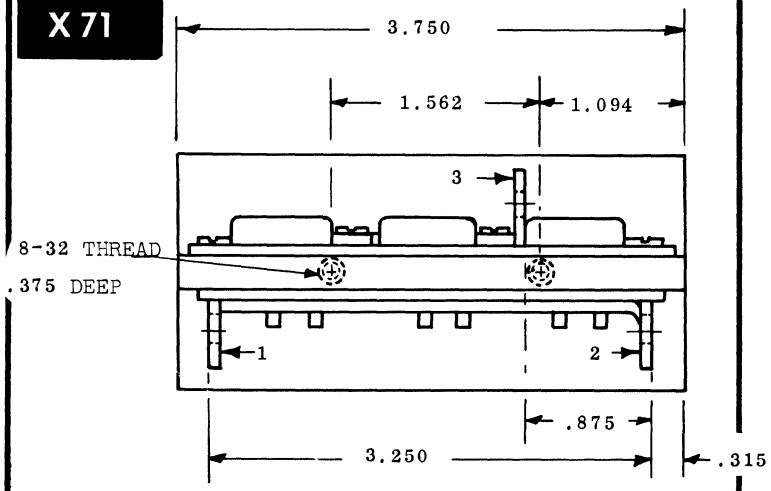
	A	B	C	D
X69	.450 .600	.079 .085	.500	.009 .011
X69a	.450 .550	.076 .085	1.50	.009 .011

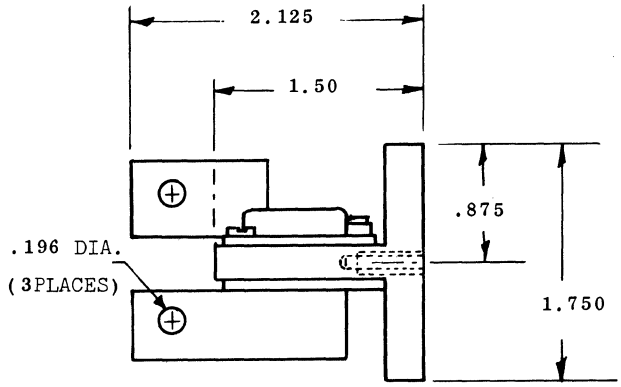
X 70



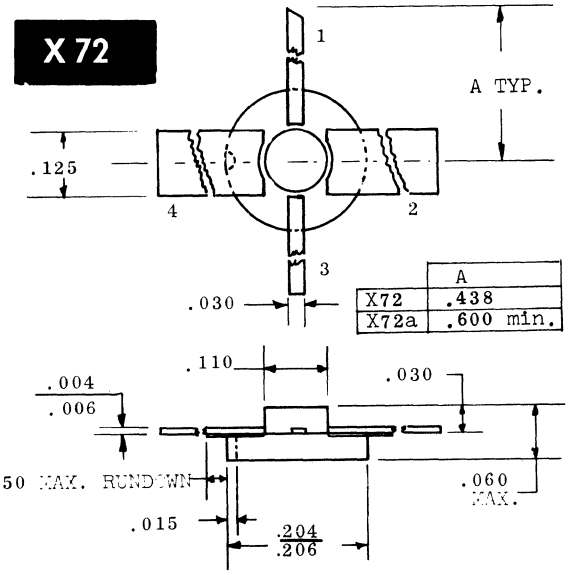
	A
X70	.250
X70a	.400

X 71





X 72

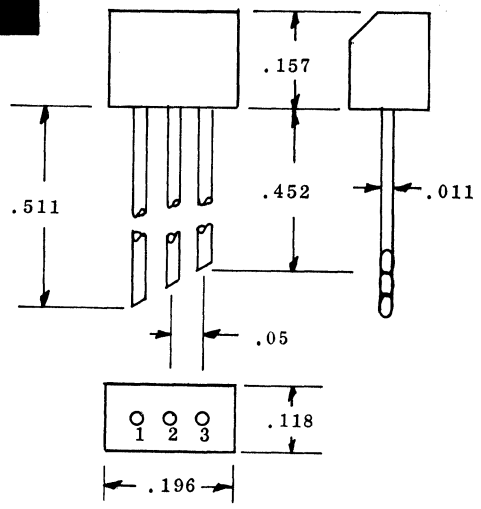


	A
X72	.438
X72a	.600 min.

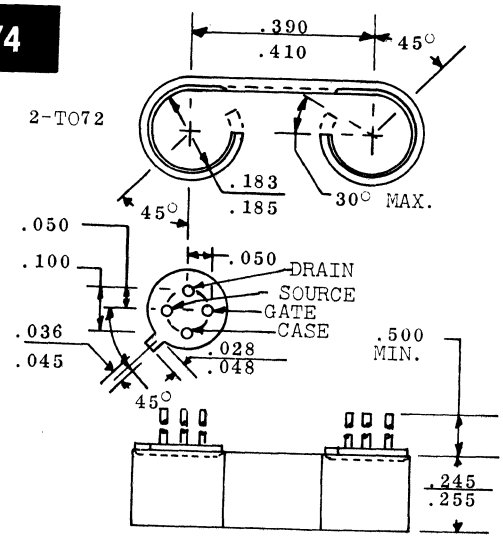
15. OUTLINE DRAWINGS

IN ORDER OF CASE NUMBER

X 73

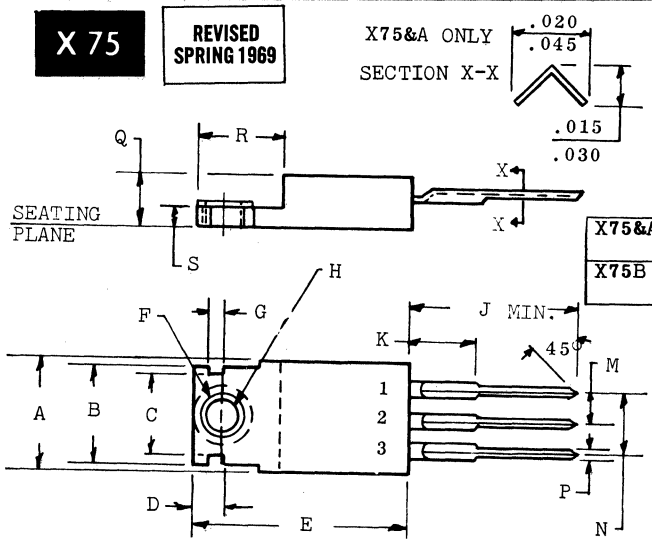


X 74

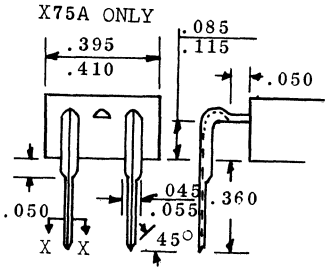


X 75

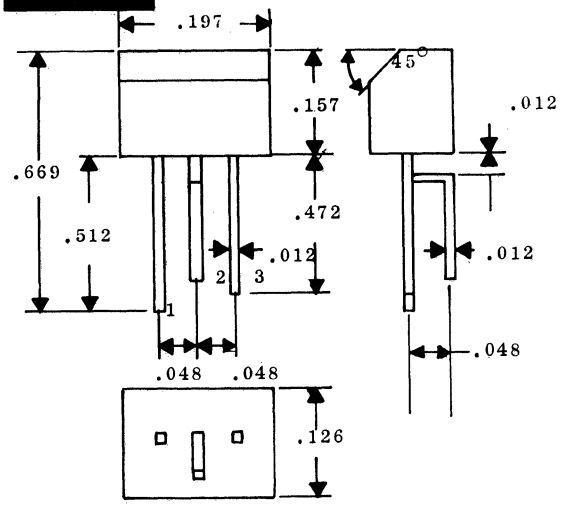
REVISED SPRING 1969



	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S
X75&A	.395	.365	.300	.100	.575	.141	.040	.115	.500	.250	.095	.190	.045	.160	.235	.020
	.410	.385	.320	.120	.600	.145	.060	.121	MIN	MAX	.105	.210	.055	.190	.265	.055
X75B	.380	.365	.300	.140	.560		.090	.141	.540	.160	.090	.190	.029	.140		.045
	.420	.385	.320	.160	.620		TYP	.145	MIN	.180	.110	.210	.035	.160		.055

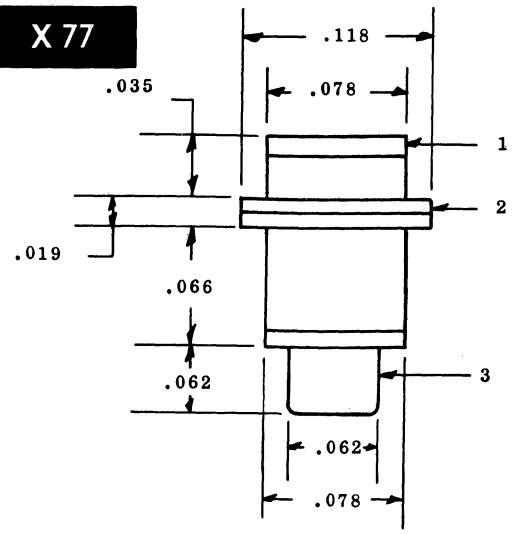


X 76

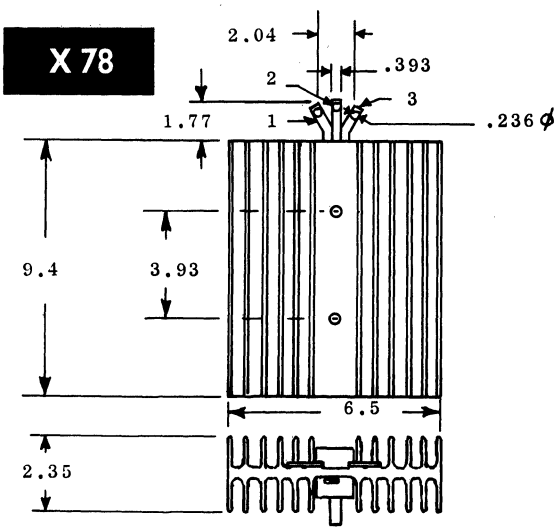


ALL DIMENSIONS IN INCHES

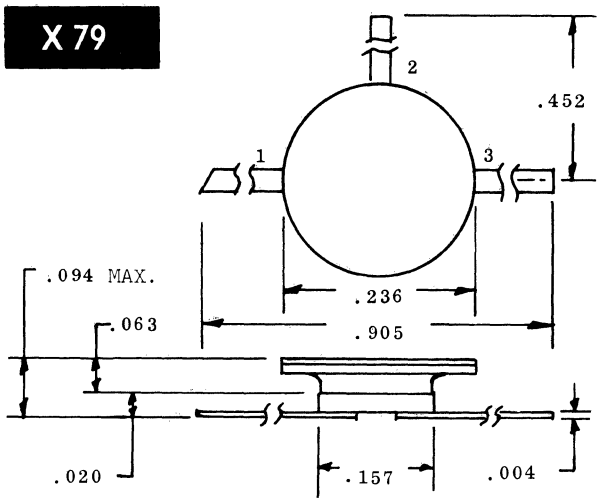
X 77



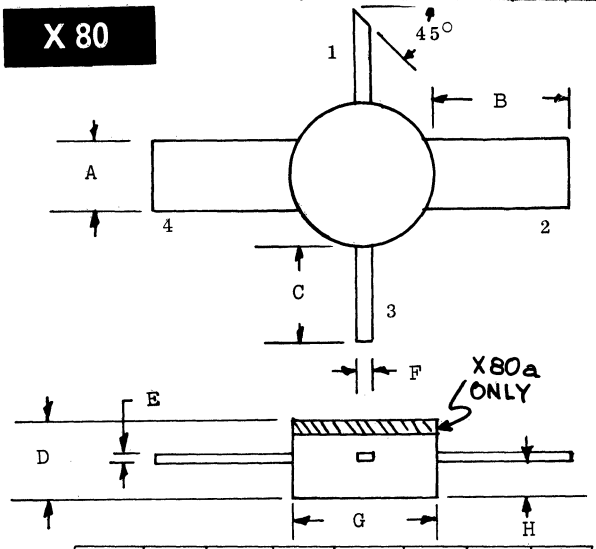
X 78



X 79

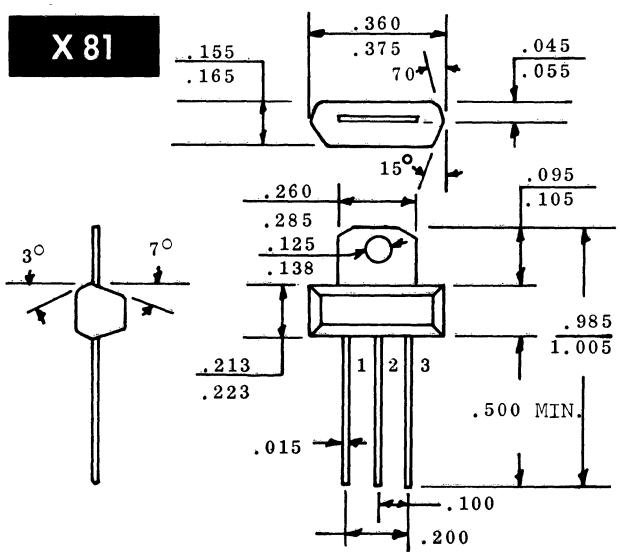


X 80

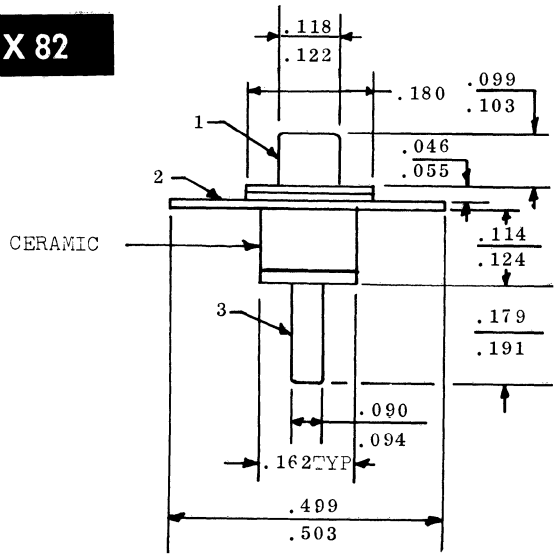


	A	B	C	D	E	F	G	H
X80	.086 MAX	.157 MIN	.157 MIN	.078	.003	.027	.150 MAX	
X80a	.071 .087	.177 .217	.177 .217	.039 .063	.002 .004	.020 .028	.136 .144	.018 .026

X 81

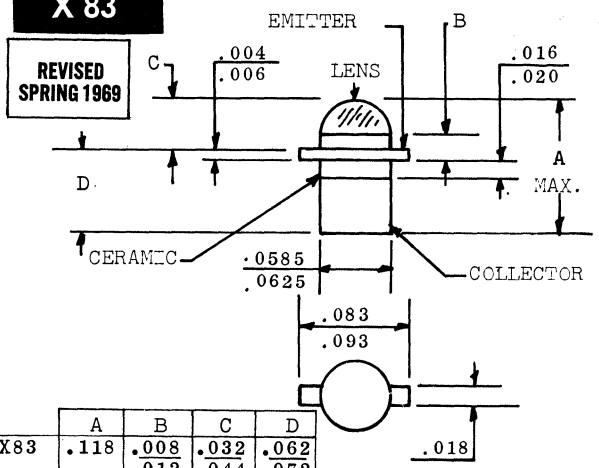


X 82



X 83

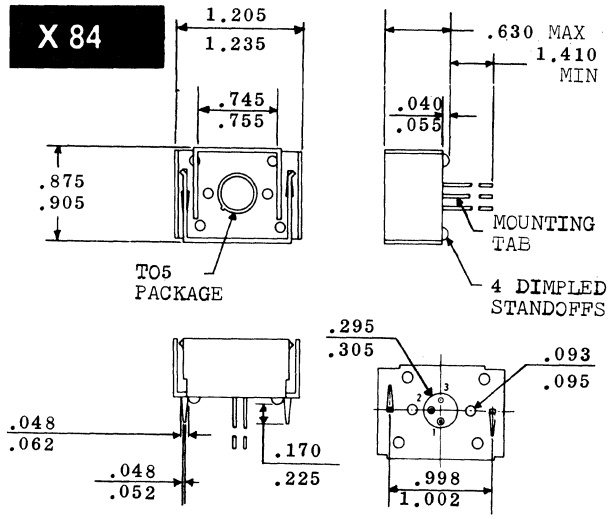
REVISED SPRING 1969



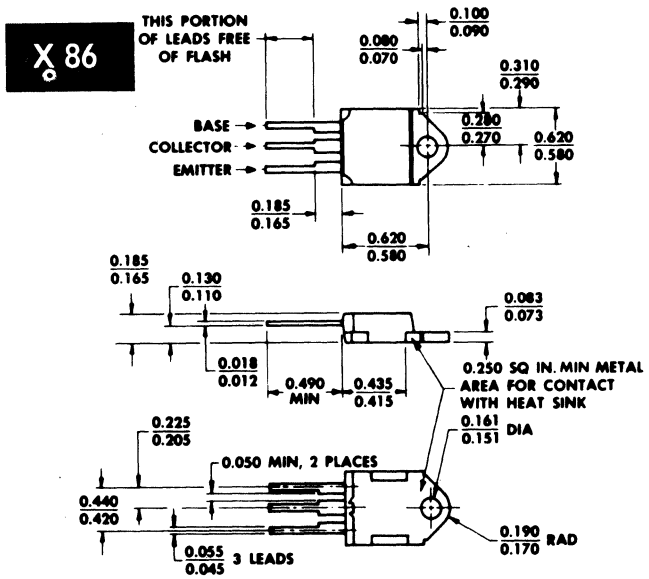
	A	B	C	D
X83	.118	.008 / .012	.032 / .044	.062 / .072
X83a	.125	.016 / .020	.023 / .029	.082 / .094
X83b	.105		.029 MAX	.062 / .072

REVISED FALL 1969

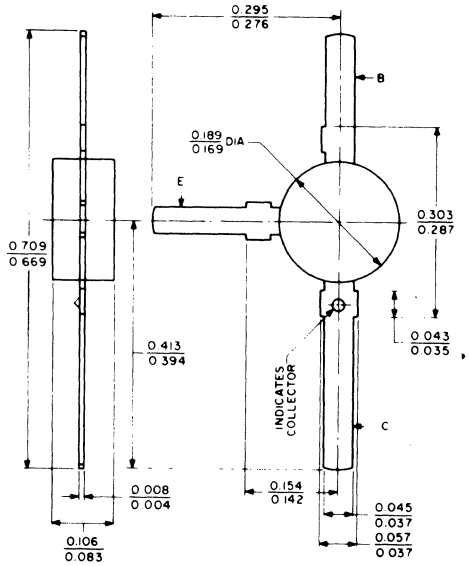
X 84



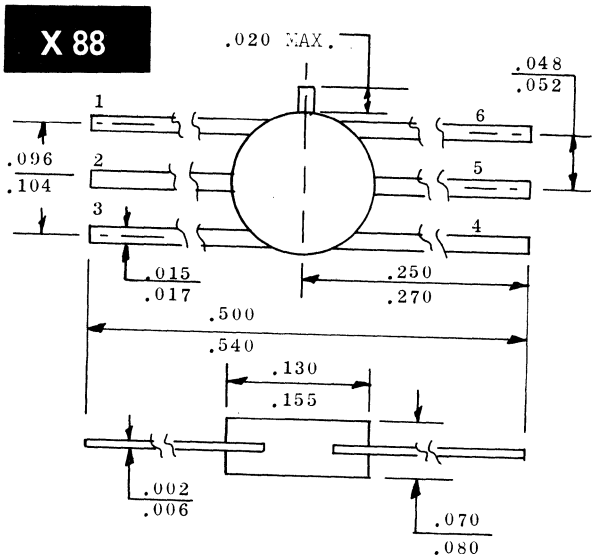
X 86



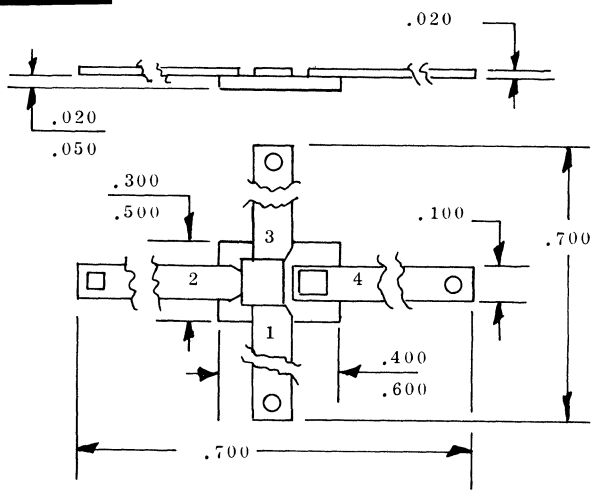
X 87



X 88

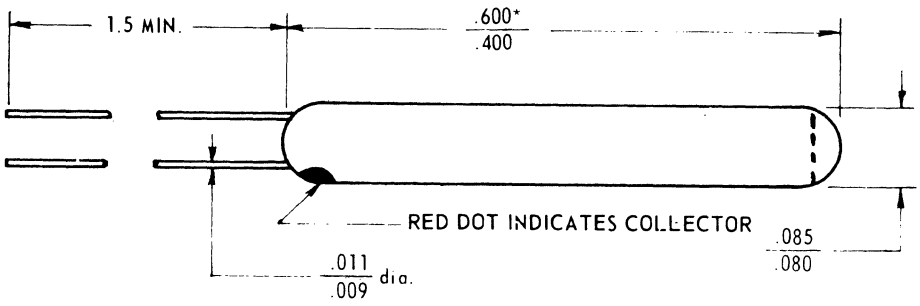


X 89



X90

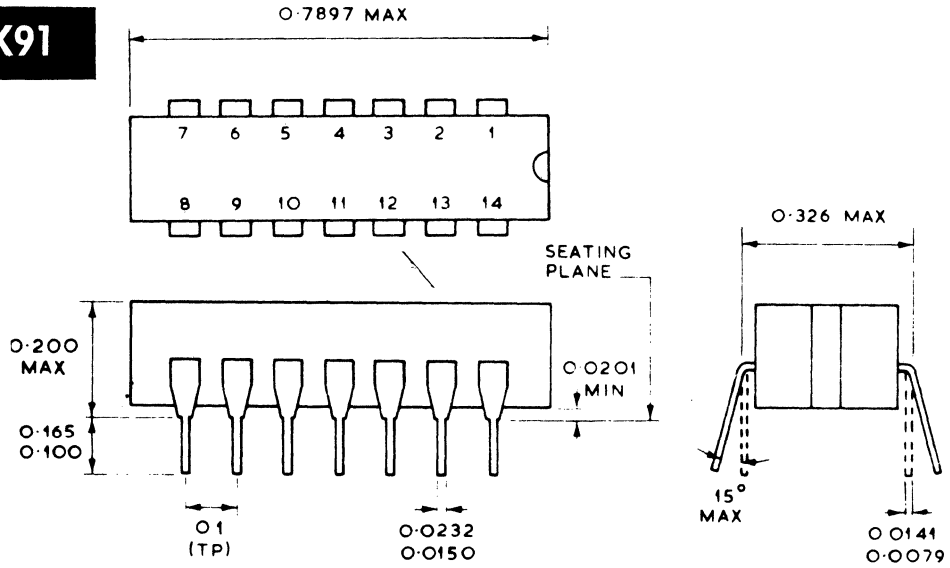
GS 400 MECHANICAL DATA



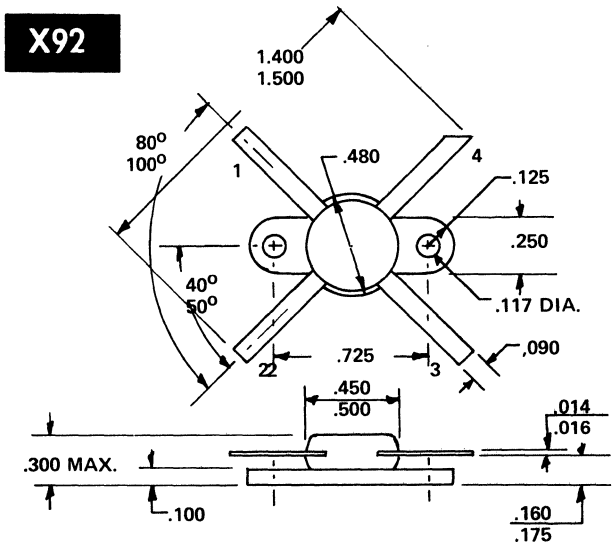
* Devices May Be Fabricated to Longer or Shorter Lengths

"A IS WITHOUT LENS"

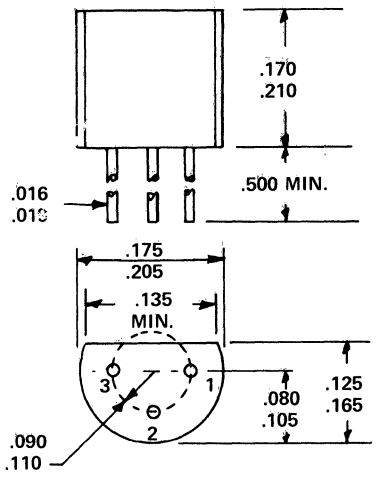
X91



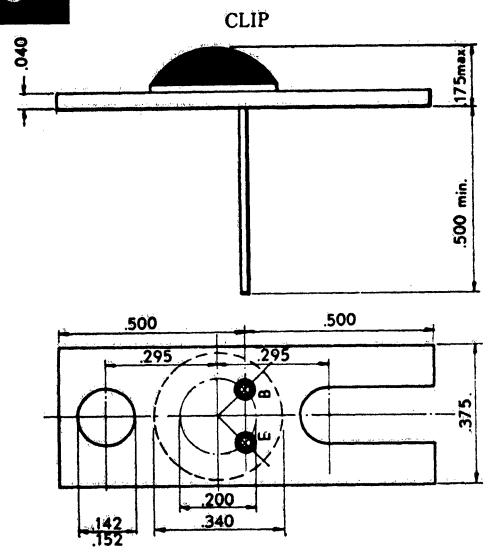
X92



X93


.170
.210
.500 MIN.
.016
.018
.175
.205
.135
MIN.
3
1
2
.080
.105
.125
.165
.090
.110

X95


CLIP
.040
.175max.
.500 min.
.500
.500
.295
.295
B
E
.375
.200
.340
.142
.152

ZA NOTES

1. The outline drawing for this device may be either MT6 or MT26. Consult manufacturer.

2. The outline drawing for this device may be either MT6 or TO5. Consult manufacturer.

3. Outline is the same as TO5 for lead length which is .50.

4. Same as TO36 outline except 5mm (metric) thread.

5. The outline drawing for this device is a TO45 with lead lengths 1.5 min.

7. X10 Outline. Type No. with dash 2 indicates 2 wire leads and .080 max. length. Type No. with dash 3 indicates 3 wire leads (third lead shown dotted). and .100 max. length.

8. Outline available in different package styles. Consult manufacturer for details.

9. Device available with more than one outline.

Suffix	Outline
a	u30
b	u30a

10. Type No. is a TO5 outline with the exception that the diameter of the leads is .027 .023.

11. Device also available R51 outline.

12. Device same as TO72 outline. Type number with suffix A same as R80 outline.

15. Standard outline drawing TO5. Also available in TO46 outline. Consult manufacturer.

16. Standard outline drawing TO18. Also available in TO5 or TO46 outline. Consult manufacturer.

17. The outline drawing for this device may be either L3b (with reduced dissipation) or L3c. Consult manufacturer.

18. The outline drawing for this device may be TO18, TO46, or TO51. Consult manufacturer.

20. The outline drawing for this device may be either TO72 or U23b. Consult manufacturer.

21. Device available with more than one outline.

Suffix	Outline
NONE	TO18
/46	TO46
/5	TO5

22. The outline drawing for this device may be either TO5, TO13, or ZA23. Consult manufacturer.

23. The outline drawing for this device is identical with a TO13 outline with .022 x 2.5 long tin nickel leads welded to each terminal.

24. The outline drawing for this device may be either TO13 or ZA23. Consult manufacturer.

25. For the outline drawing, refer to the individual slash numbers.

ZA NOTES CONTINUED

26. Type number with slash S same as X56 outline. Type number with slash L same as X56a outline.

27. The outline drawing for this device may be either R81 or R3a. Consult manufacturer.

28. The outline drawing for this device may be either MT11 or MT12. Consult manufacturer.

29. Type number with R suffix indicates a TO18 package; type number with a S suffix indicates a TO5 package.

30. The outline drawing for this device may be either MT25a or MT42b. Consult manufacturer.

JEDEC "TO" DRAWING NOTES

1. This zone is controlled for automatic handling. The variation in actual diameter within the zone shall not exceed 0.010 (0.25MM).
2. (All leads) Diameter is uncontrolled to .020 from seating plane and beyond minimum tolerance of lead length (1.5 or .5) from seating plane. Dim. A applies between .020 and .250 from seating plane. Dim B applies between .250 and minimum tolerance of lead length.
3. Measured from maximum diameter of the actual device.
4. Leads having maximum diameter .019 (.483MM) measured in gaging plane .054 - .001 (1.37MM - .025MM - .000MM) below the seating plane of the device shall be within .007 (.178MM) of their true locations.
5. Tab centerline.
6. Diameter (a) concentric within 0.006 total indicator reading. Cap flange shall never extend beyond header periphery. 0.005 max burr or weld flash.
7. Diameter (a) concentric within 0.006 total indicator reading.
8. Applies to thickness of tab.
9. (Three leads), the specified lead diameter applies to the zone between .050 (1.27MM) and .250 (6.35 MM) from the reference plane. Between .250 (6.35MM) and end of lead, a maximum of .021 (.533MM) is held. Outside of the zones the lead diameter is not controlled.
10. 6-32NC-2A. Maximum pitch diameter of plated threads shall be basic pitch diameter (.1177,2.98MM). Reference (screw thread standards for federal services 1957) handbook H28-part 1.
11. Complete threads shall extend to within three threads of the seating plane and shall remain within tolerances to within two threads tip of stud.
12. Maximum (.019, .483MM) diameter leads and maximum (.230, 5.84MM) stud shoulder to within .007 (.178MM) radius of true location relative to the (.460, 11.68MM) diameter flange at a gauging plane .054 (1.37 MM) .001 (.025MM), - .000 (.000MM), from the reference plane.
13. Dimension does not include sealing flanges.
14. The outline contour with exception of hexagon is optional within zones or dimension specified.
15. Pitch diameter of 10-32 UNF-2A (coated) threads. (ASA B1.1-1960).
16. This terminal can be flatten and pierced or hook type.
17. Position of leads in relation to the hexagon is not controlled.
18. Pitch diameter - thread 1/4-28 UNF-2A (coated). Reference screw thread standards for federal services - handbook H-28 or ASA B1.1 - 1960.
19. Pitch diameter - thread 5/16-24 UNF-2A (coated). Reference (screw thread standards for federal services - handbook H-28 or ASA B1.1 - 1960).
20. Contour and orientation of fixed terminal lugs are optional.

JEDEC "TO" DRAWING NOTES

21. Minimum flat.

22. Minimum diameter of seating plane.

23. A chamfer (or undercut) on one or both ends of hexagonal portion is optional.

24. Minimum difference in terminal lengths to establish datum line for numbering terminals.

25. Minimum spacing between terminals.

26. The device may be measured by direct methods or by the gage and gaging procedure described on gage drawing GS-1.

27. Four leads.

28. These dimensions should be measured at points .050 to .055 below seating plane. When gage is not used, measurement will be made at seating plane.

29. Two leads.

30. Insulation rundown.

31. Three leads.

32. (Insulated) locator pin.

33. Externally coated devices shall not have coating on the leads beyond this zone.

34. (All leads) Diameter is uncontrolled to .050 from seating plane and beyond minimum tolerance of lead length (1.5 or .5) from seating plane. Dim A applies between .050 and .250 from seating plane. Dim B applies between .250 and minimum tolerance of lead length from seating plane.

35. Four holes.

36. Four equally spaced feet to lie within this zone. Minimum distance between a lead and a foot .031.

37. Angular orientation of individual terminals is undefined.

38. Complete threads shall extend to within 2-1/2 threads of the seating plane.

39. The leads shall be essentially straight within this zone.

40. 1/4-28 UNF-2B.

41. Terminals may be referred to by number as follows: Terminal No. 1 is the odd terminal and connected to the case. Other terminals are numbered clockwise from No. 1.

42. Leads having maximum diameter .045 measured in gage plane .031, .001, .000 below the seating plane of the device shall be within .010 of their true position relative to minimum diameter .096 holes in the mounting flange.

43. 8-32 UNF-2A.

44. Hex for standard 1/4 ignition wrench.

JEDEC "TO" DRAWING NOTES

45. Pitch diameter of 8-32 UNC-2A (coated) threads (ASA B1.1-1960).

46. Maximum size leads and stud must be within .0055 of the exact positions shown with respect to the .885 maximum diameter measured at points .015 maximum below seating plane.

47. .190-32 UNF-2A. Maximum pitch diameter of plated threads shall be basic pitch diameter .190 reference (screw thread standards for federal services 1957) handbook H28 1957 P1.

48. Lead diameter in this area unrestricted.

49. Both ends.

50. Two mounting holes.

51. Maximum diameter leads measured at a gaging plane .054, .001, .000 below the seating plane shall be within .010 of their true positions with respect to the .725 diameter.

52. Angular orientation of edge optional.

53. Square, radius or diagonal on end of terminal is optional.

54. Index tab for visual orientation only.

56. Leads shall emerge from the body diameter dimension within the limits indicated by the .015/.035, .010 & .025 dimensions.

57. Minimum and Maximum dimensions both apply to the major (largest) diameter only.

58. Radius at corners of mounting flange optional.

59. Angular orientation of terminal ends as shown ± 15 deg.

60. A .075 clearance from hole centers to .765/.785 diameter for mounting fasteners.

61. (All leads) Diameter is uncontrolled beyond .625 from seating plane. Dim A applies between .050 and .250 from seating plane. Dim B applies between .250 and .625 from seating plane.

62. Measured at seating plane.

63. Complete threads to extend to within 3-1/2 threads of seating plane.

64. Leads having maximum diameter .019 (.483MM) measured in gaging plane .025 (.635MM) .001 (.025MM) - .000 (.000MM) below the seating plane of the device shall be within .007 (.178MM) of their true positions.

65. (Eight leads). Maximum number of leads omitted in this outline, three (3). The number and position of leads actually present are indicated in the product registration. Outline designation determined by the location and minimum angular spacing of any two adjacent leads.

66. (Four leads). Maximum number of leads omitted in this outline, none (0). The number and position of leads actually present are indicated in the product registration. Outline designation determined by the location and minimum angular or linear spacing of any two adjacent leads.

JEDEC "TO" DRAWING NOTES

67. (Four, six, ten, or twelve leads). Maximum number of leads omitted in this outline, one (1). The number and position of leads actually present are indicated in the product registration. Outline designation determined by the location and minimum angular spacing of any two adjacent leads.

68. Length of incomplete or undercut threads.

69. Lead diameter uncontrolled above the seating plane.

70. Contour and orientation of terminal flats are undefined.

71. The body and terminals of the device, with the exception of the extended lug length, lies within the cylinder defined by the dotted outline.

72. Pitch diameter of 1/2-20 UNF-2A (coated) threads (ASA-B1.1).

73. Leads missing from their designated positions shall also be counted when numbering leads for specific applications.

74. Lead spacing shall be measured within .030 (.762MM) from the point of emergence from the body.

75. Diameter of hole or width of slot out either side of terminals.

76. Lead dimensions uncontrolled in this zone to allow for body and lead finish irregularities.

77. Contour of the package beyond this zone is uncontrolled.

78. Seated height with lead bent at right angles.

79. Flexible leads for terminals 1 and 2 are identified by color coding for specific applications.

80. Pitch diameter of 3/4-16 UNF-2A (coated) threads (ASA B1.1).

81. Irregularity in body outline not controlled in this zone.

82. Terminal configurations optional between the body of the device and the flats on the terminals.

83. Visual or mechanical index is optional if one lead is omitted.

84. The body of the device with exception of the hexagon, thread, and flexible lead extensions lies within the cylinder defined by the dotted outline.

85. Pitch diameter of 1-12 UNF-2A (coated) threads. (ASA Bul. 1-1960)

86. The body of the device with the exception of heat sink and flexible leads lies within the cylinder defined by the dotted outline.

87. Pitch diameter of threads - 1/2-20 UNF2B (ASA Bul. 1-1960).

88. Parallel, twisted or coaxial flexible leads for terminals 1 and 2 are indentified by color for specific applications. Coaxial shielded lead has shield as terminal 2.

89. When dimensions less than .180 (4.58mm) are used, clearance in the second fin will be provided.

JEDEC "TO" DRAWING NOTES

90. The use of either a hook, short tab, or tall tab terminal contour is optional. An index point is required when the tall tab terminal contour (identical to the adjacent terminals) option is used.

91. Elongated hole in tab is optional.

92. With the device seated in a .165 (4.20mm) .010 (.25mm) - .000 (.00mm) hole a maximum force of 20 grams on each of the terminals shall cause the flats of the terminals to contact the seating plane.

93. Use of tab extension is optional

94. Pitch of diameter 5/8-18 UNF-2A (coated) threads (ASA Bul. 1-1960).

95. All terminals.

96. Spacing and angle of the end leads at the point of emergence of body is not controlled.

97. Mechanical index, optional.

98. Orientation of flats not controlled in relation to the leads.

99. Measured from intersection of lead axis and body surface of diameter

100. Dimensions, configurations, and position of leads optional in this zone.

101. Leads shall emerge from the body within the limits of .030 (.76mm) max. above the seating plane and .035 (.88mm) max from the center line.

102. Details of the outline in this zone are optional except that the outline shall not extend beyond the seating plane.

103. An index mark shall be located on the top surface in the quadrant above terminal one.

104. These tolerances are non cumulative.

105. The cross section of each lead having a maximum diameter of .019 (.482 MM) and measured in a gaging plane .054 (1.372 MM) ± .001 (.025 MM) - .000 (.000MM) below the seating plane lies in a circle having a diameter of .033 (.838 MM) centered at the true position of the lead axis at its point of exit relative to the maximum body diameter shown.

106. Configuration of package optional within zone specified.

107. This dimension applies to leads 1 and 3 only.

108. Maximum radius of .050 in. (1.27 MM) on all body edges and corners.

109. Lead spacing to be measured between .100 in. (2.54 MM) and .125 in. (3.17 MM) from the point of emergence from the body.

D.A.T.A. LEAD CODE IDENTIFICATION GUIDE

LEAD CODE EXPANDER
⍁ — Emitter or Source tied to case
§ — Base or Drain tied to case
∅ — Collector or Gate tied to case

LEAD CODE	LEAD CONFIGURATION			
	1	2	3	4
A	E	B	C	
B	E	C	B	
C	B	E	C	
D	B	C	E	
E	C	E	B	
F	C	B	E	
G	E	B	C	CASE
H	E	B	CASE	C
J	B	E	C	CASE
K	B	E	CASE	C
L	E	C	B	C
M	B	C	CASE	E
N	C	B	E	E
P	E	B	C	C
R	E	B	E	C
S	E	C	E	B
T	B		E	
U	C	B	E	B
V	C	E	B	E
W	E		C	
X	B 1	C 2	E 3	CASE 4
Y	B	E	C	E
CA	E	B1		B2/CASE
CB	B1	E	B2	
CC	E	B1		B2
CD	E	B2	B1	
DA	S	G	D	
DB	S	D	G	
DC	D	G	S	
DD	D	S	G	
DE	G	S	D	
DF	G	D	S	
DG	S	G	D	CASE
DH	S	D	G	CASE
DJ	D	S	G	CASE
DK	D	G	S	CASE

LEAD CODE	LEAD CONFIGURATION			
	1	2	3	4
DM	D	G	SUB/CASE	S
DN	S/SUB	G	D	SUB/CASE
DP	D	G	S	SUB/CASE
DQ	S/SUB	D	G	
DR	S	G	D	SUB/CASE
DS	D	G	SUB	S
DT	D	G	S	SUB
DU	S	G1	D	G2/CASE
DV	S	G1	D	G2-SUB/CASE
DW	D	S	G	SUB/CASE
DX	D	G2	G1	S/SUB
DY	S	D	G2/CASE	G1
DZ	G	D	SUB/CASE	S
EA	G1	G2	D	S
EB	S	D	G	G
EC	D	S	G1	G2/SUB
GA	E	B1	C	B2
GB	C	B1	E	B2
GC	E1	B	C	E2
GD	E1	B	E2	C
GE	C	E1	B	E2
GG	E2	E1	B	C
GH	E2	B	E1	C
GJ	B	E1	C	E2
GK	B1	E	C	B2
GM	B1	C	E	B2
GN	E	B2	B1	C

ABBREV.	TERM
E	Emitter
B	Base
C	Collector
S	Source
D	Drain
G	Gate
Sub	Substrate
Case	Case/Shield

A—BZ	Bipolar
CA—CZ	UJT
DA—FZ	FET
GA—	Multi Element Bipolar

SECTION 17

TRANSISTOR

Manufacturer's Local Offices

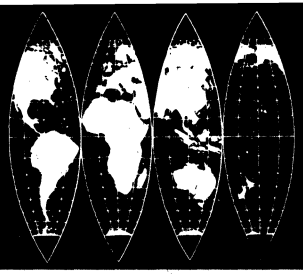
Since this D.A.T.A. BOOK provides only basic technical data for initial selection purposes, this section of Manufacturers' Local Offices will facilitate your requesting complete data sheets and application information from a nearby office.

TFKG – ALLGEMEINE ELEKTRICITAETS GESELLSCHAFT AEG – TELEFUNKEN

		Zip Code	Telephone No.	Telex
Postfach 1042, 7100 Heilbronn, Germany			07131-8821	728746
EXPORT	AEG–Telefunken Postfach 1042 Theresienstr, 2 7100 Heilbronn, Germany		07131-8821	728746
U. S. A.	Telefunken Sales Corporation South Street, Roosevelt Field Garden City, L. I., New York	11530	516-741-1390	

APX – AMPEREX ELECTRONIC CORPORATION

	Zip Code	Telephone No.	TWX
Semiconductor and Microcuits Division, Slatersville, Rhode Island	02876	401-762-9000	401-767-2499



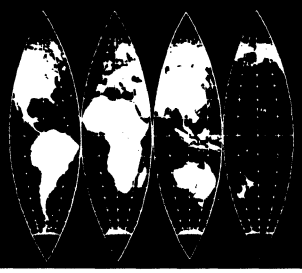
Manufacturer's Local Offices

AML – AMELCO SEMICONDUCTOR

			Zip Code	Telephone No.	TWX
1300 Terra Bella Avenue, Mountain View, California			94040	415-968-9241	910-379-6494 Telex 34-8416
CALIFORNIA	Anaheim	Amelco Semiconductor 910 South Brookhurst, Suite 201	92804	714-635-3171	Telex 65-5433
FLORIDA	Orlando	Amelco Semiconductor 711 Magnolia Avenue	32800	305-423-5833	Telex 56-4403
ILLINOIS	Des Plaines	Amelco Semiconductor 650 W. Algonquin Road	60016	312-439-3250	Telex 25-3661
MASSACHUSETTS	Westwood	Amelco Semiconductor 805 High Street	02090	617-326-6600	Telex 92-4436
NEW JERSEY	Ridgefield	Amelco Semiconductor 535 Bergen Boulevard	07657	201-943-4700	Telex 13-3485
WEST GERMANY		Amelco Semiconductor 62 Wiesbaden Schone Aussichp –56		370-243	841-418-6581

ATEI – ATES COMPONENTI ELETTRONICI S.p.A.

			Telephone No.	Telex
2 Via Tempesta - 20149, Milan, Italy			4695651	31481
FRANCE	Paris xe	Tekimex –99 Faubourg-du-Temple	2053230	
ENGLAND	London	Ates Componenti Elettronici S.p.A. London Office: Prospect House Boston Manor Road Brentford	01.560.8337	262401



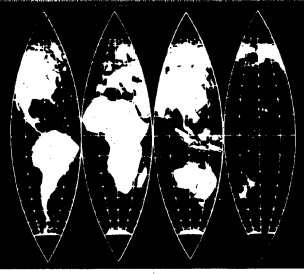
BNT — BURNS & TOWNE, INC.

			Zip Code	Telephone No.
18-36 Granite Street, Haverhill, Massachusetts			01830	617-373-1501
NATIONAL OFFICE				
NEW YORK	Hicksville	Burns & Towne, Inc. National Sales Office 500 Old Country Road	11802	516-935-0522
ALABAMA	Huntsville	Space Engineering Sales 4306 Governors Drive SW Suite R	35805	205-837-6060
CALIFORNIA	Orange	Sales Associates, Inc. 1232 West Collins Avenue	92667	714-633-7442
	Redwood City	Carson Electronic Products 2334 Vera Avenue Post Office Box 1216	94061	415-365-4620
COLORADO	Englewood	A—G Electronics 5417 South Oneida Way	80110	303-771-1473
CONNECTICUT	Bristol	E. E. Specialists, Inc. 281 Vera Road	06010	203-584-0077
FLORIDA	Orlando	Space Engineering Sales 999 Woodcock Road Suite 216	32803	305-841-2271
ILLINOIS	Chicago	J. Rinaldi Inc. 6319 North Central Avenue	60646	312-763-4848
MARYLAND	Timonium	Barnhill & Associates Inc 1931 Greenspring Drive	21403	301-252-5610
MASSACHUSETTS	Needham	Comp Rep Associates Inc. 1116 Great Plain Avenue	02192	617-444-2484
	Burlington	N. E. Technical Sales Corp Seven Cypress Drive	01803	617-272-0434

Continued on next page

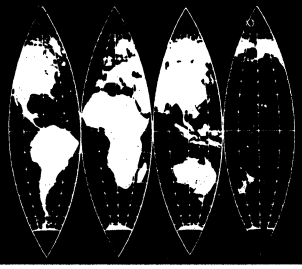
BNT – BURNS & TOWNE, INC. CONTINUED

			Zip Code	Telephone No.
18-36 Granite Street, Haverhill, Massachusetts			01830	617-373-1501
MICHIGAN	Southfield	S. Sterling Company 21250 10–½ Mile Road	48075	313-357-3700
MINNESOTA	Minneapolis	Charles E. Bohlig Associates 3925 Monterey Avenue South	55416	612-922-7011
MISSOURI	St. Louis	Compar/Midwest 11734 Lackland Industrial Drive	63141	314-542-3399
NEW YORK	Great Neck	Cooper Simon & Co., Inc. 38 Middle Neck Road	11021	516-487-1142
	Pittsford	Taggart/Hart Associates, Inc. 48 Bebedict Drive Post Office Box 304	14534	716-381-3380
	Peekskill	Milton Ross Associates Post Office Box 71	10566	914-737-7707
NO. CAROLINA	Greensboro	Space Engineering Sales 2509 Lake Shore Drive	27407	919-299-0987
OHIO	Dayton	S. Sterling Company 2673 Culver Avenue	45429	513-274-0634
	Cleveland	S. Sterling Company 5827 Mayfield Road	44124	216-442-8080
PENNSYLVANIA	Philadelphia	KVA Sales Company 7208 Rising Sun	19111	215-728-5802
TEXAS	Dallas	P. Kreager Company 9230 Cliffmere Drive	75238	214-348-3521
VIRGINIA	Lynchburg	Barnhill & Associates, Inc. Post Office Box 1104	24505	703-384-2062



CDC — CONTINENTAL DEVICE CORPORATION

			Zip Code	Telephone No.	TWX
A TELEDYNE COMPANY 12515 Chadron Avenue, Hawthorne, California			90250	213-772-4551	910-325-6217
CALIFORNIA	Palo Alto	Continental Device 800 San Antonio Road	94303	415-321-4681	910-373-1750
FLORIDA	Winter Park	Continental Device 124 East Morse Boulevard	32789	305-647-7813	810-853-0254
ILLINOIS	Des Plaines	Continental Device 6600 North Mannheim Road	60018	312-299-6196	910-233-0897
MARYLAND	Lutherville	Continental Device 1524 York Road Baltimore County	21093	301-825-1920	710-232-1855
MASSACHUSETTS	Concord	Continental Device 191 Sudbury Road	01742	617-369-7233	710-390-1769
NEW JERSEY	Little Falls	Continental Device 19 East Main Street	07424	201-256-8557	710-988-5719
NEW YORK	Wappingers Falls	Continental Device Suite No. 7 895 South Road	12590	914-297-4316	510-248-0053
OHIO	Dayton	Continental Device The Buckingham Bldg. Suite 160 3481 Office Park Drive	45439	513-298-7207	810-459-1867
TEXAS	Dallas	Continental Device 6115 Denton Drive	75235	214-357-0259	910-861-4409



DEL – DELCO RADIO DIVISION
General Motors Corporation

700 East Firmin Street, Kokomo, Indiana — Zip Code 46901 — Telephone No. 317-457-8461, 317-459-2175 — TWX DLRA 3174525747

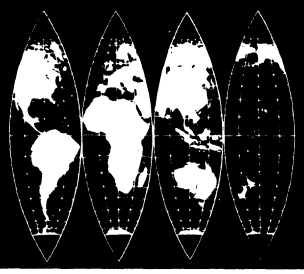
CALIFORNIA	Santa Monica*	Delco Radio Division General Motors Corporation 726 Santa Monica Boulevard	90401	Santa Monica 213-393-1465 Los Angeles 213-870-8807
ILLINOIS	Chicago*	Delco Radio Division General Motors Corporation 5151 North Harlem Avenue	60656	312-775-5411
NEW JERSEY	Union*	Delco Radio Division General Motors Corporation Box 1018 Chestnut Station	07083	Union 201-687-3770 N. Y. C. Area 212-962-6622

*Office includes field lab and resident engineer for applications assistance

ETC – ELECTRONIC TRANSISTORS CORPORATION

153-13 Northern Boulevard, Flushing, New York — Zip Code 11354 — Telephone No. 212-539-6700

CALIFORNIA (Southern)	Van Nuys	Tim-Co Sales Company 16024 Sherman Way	91406	213-873-4940
(Northern)	Palo Alto	Win W. Tompkins Company 2875 Middlefield Road	94306	415-326-7940



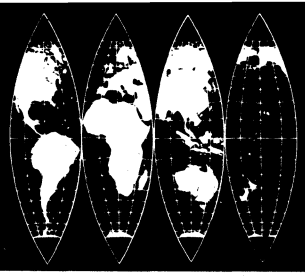
Manufacturer's Local Offices

HUGS – EMIHUS MICROCOMPONENTS LTD.

			Telephone No.	TELEX
Glenrothes, Fife, Scotland			Glenrothes 2261	72148
ENGLAND	Middlesex	Emihus Microcomponents Ltd. Heathrow House Bath Road, Cranford	Skyport 9584 Skyport 9961	23613

FERB – FERRANTI LIMITED

			Telephone No.	Telex
Gem Mill, Chadderton, Oldham, Lancaster, England			061 MAIN 6661	66247
ENGLAND	London	Ferranti Ltd. Millbank Tower Millbank, London, S. W. 1	01 834 6611	264055
				TWX
U. S. A.	New York	Ferranti Electric, Inc. East Bethpage Road Plainview, Long Island, New York 11803	516-293-8383	510-224-6483
CANADA	Toronto	Ferranti Electronics A Div. of Ferranti-Packard Electric Ltd. Industry Street, Toronto 15, Ontario	416-762-3661	610-491-1434
AUSTRALIA	Sydney	Noyes Bros. Pty. Ltd. General Post Office Box 1587, Sydney	43-0466	
DENMARK	Copenhagen	Fredslund Pedersen Finsensvej 39, Copenhagen F.	GODTHAAB (0136) 9050	5052
FRANCE	Paris	CERAM 31, Rue du Docteur Finlay Paris 15e	273-07-20	SLE-27028
GERMANY	Munich	Neumuller and Co. GmbH 8 Munich 2, Karlstrasse, 55	59 24 21	5-22106
ITALY	Milano	Messrs. Mottola P. Tta Umberto 20122 Milano	780-231	31317
SWEDEN	Stockholm	Bergman and Beving A. B. Karlavagen 76, Stockholm 10	24 60 40	19929



Manufacturer's Local Offices

GIC — GENERAL INSTRUMENT CORPORATION

			Zip Code	Telephone No.	TWX
Semiconductor Products Group, 600 West John Street, Hicksville, Long Island, New York			11802	516-733-3000	510-221-1866
CALIFORNIA	Tarzana	General Instrument Corporation 18455 Burbank Boulevard	91356	213-873-6500	910-493-1243
ILLINOIS	Chicago	General Instrument Corporation 6054 West Touhy Avenue	60648	312-774-7800	910-221-3125
NEW YORK	Hicksville	General Instrument Corporation Post Office Box 600	11802	516-733-3333	510-221-1866
CANADA	Waterloo, Ontario	General Instrument of Canada, Ltd. 151 Weber Street		519-744-8101	610-365-3415

INTERNATIONAL

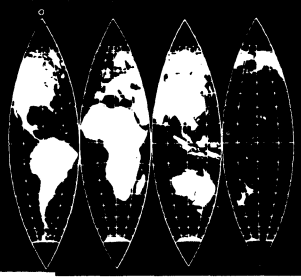
NEW YORK	Hicksville	General Instrument International Corporation 600 West John Street	11802	516-733-3322	Cable Transistor Hicksville, New York
ITALY	Milan	General Instrument Europe S. P. A. Piazza Amendola 9	20149	469-7751-2-3 469-7754-5	TWX GINEUR 31454

IDC — INTERNATIONAL DIODE CORPORATION

	Zip Code	Telephone No.
90 Forrest Street, Jersey City, New Jersey	07304	201-432-7151

ITT — ITT SEMICONDUCTORS

	Zip Code	Telephone No.	TWX
3301 Electronics Way, West Palm Beach, Florida	33407	305-842-2411	510-952-6667



Manufacturer's Local Offices

LUCB — JOSEPH LUCAS (ELEC.) LTD.

			Telephone No.	Telex
Mere Green Road, Four Oaks, Sutton Coldfield, Warwickshire, England			021-308-3501	338461
GERMANY	Koln	Joseph Lucas (Germany) G.m.b.H. 505 Porz b. Koln Postfach 609	5.50.45	LUCA D 887431
FRANCE	Paris	Lucas Service Europe Boite Postal 85 96 Boulevard du General Leclerc 92-Nanterre	204-54-65	25906 NANTR.

UEHK — MICROELECTRONICS LTD.

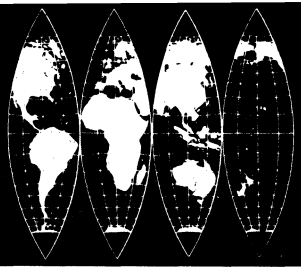
			Telephone No.	Telex
Post Office Box 9477, Kwun Tong, Kowloon, HongKong, B. C. C.			K-892423	HX510
ENGLAND	Wembley. Middx.	York House Empire Way	01-903-2721	934263

MITJ — MITSUBISHI ELECTRIC CORPORATION

Kita-Itami Semiconductors Works,
1 Zugaike, Ojika, Hyogo Ken, Itami-Shi, Japan

MST — MS TRANSISTOR CORPORATION

	Zip Code	Telephone No.	TWX
80-02 51st Avenue, Elmhurst, New York	11373	212-478-3134	510-222-8258



Manufacturer's Local Offices

NSC — NATIONAL SEMICONDUCTOR

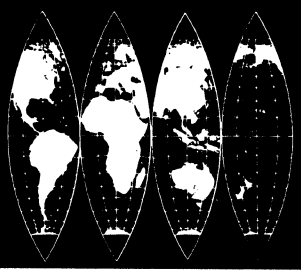
			Zip Code	Telephone No.	TWX
Microcircuits Division, 2975 San Ysidro Way, Santa Clara, California			95051	408-245-4320	
CALIFORNIA	Mountain View	National Semiconductor 2680 Bayshore Frontage Road Suite 112	94040	415-961-4740	910-379-6432
	Sherman Oaks	National Semiconductor Valley Freeway Center Building 15300 Ventura Boulevard Suite 305	91403	213-783-8272	910-495-1773
ILLINOIS	Chicago	National Semiconductor 6322 North Milwaukee Avenue	60646	312-631-0654	910-221-0999
MARYLAND	Timonium	National Semiconductor 1826 Pot Spring Road	21093	301-252-5310	710-232-1848
MASSACHUSETTS	Waltham	National Semiconductor 391 Totten Pond Road	02154	617-891-5393	710-332-0435
NEW JERSEY	Fort Lee	National Semiconductor West Cliffs House 2375 Hudson Terrace	07024	201-461-6111	710-991-9795

INTERNATIONAL

				Telex
ENGLAND	Egham	Athena Semiconductor Marketing Co. Ltd. 140 High Street (Surrey)	Egham 3676	23850
FRANCE	Vincennes, 94	Electronique MS 106 Rue de la Jarry	808-70-50 (51)	
GERMANY	Karlstrasse 55	Neumuller & Company GmbH 8 Munchen 2 German Federal Republic	592-421	Telex 843-330-35
JAPAN	Tokyo	Electro-Marketing Corporation Sanei Bldg. No. 8 Sanei-Cho, Shinjuku-Ku	359-4521	Telex ELEMART TK4952

PHIC — PHILIPS ELECTRON DEVICES

	Telephone No.	Telex
Semiconductor Tube and Component Division of Philips Electronics Industries Ltd. 116 Vanderhoof Avenue, Toronto 17, Ontario, Canada	416-425-5161	02-2513



Manufacturer's Local Offices

PIR – PIRGO ELECTRONICS

	Zip Code	Telephone No.
Post Office Box 397, Farmingdale, Long Island, New York	11735	516-694-9880

This is an affilliate company to Sprague Electric Company—See location of field offices listed under Sprague Electric Company.

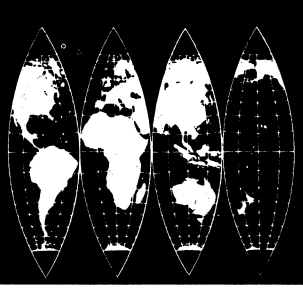
QDC – QUALIDYNE CORPORATION

	Zip Code	Telephone No.	TWX
3699 Tahoe Way, Santa Clara, California	95051	408-738-0120	910-339-9273

SCA – SEMICOA

	Zip Code	Telephone No.	TWX
940 South Ajax Avenue, City of Industry, California	91744	213-965-2496	

CALIFORNIA (Northern)	Palo Alto	Nor-Cal Associates 999 Commercial Street	94303	415-328-6616	
MASSACHUSETTS	Lexington	Contact Sales Company 594 Marrett Road	02133	617-861-8544	
NEW JERSEY	Cherry Hill	Marshbank-Monteiro Associates 95 West Gate Drive	08034	609-428-5551	
NEW YORK	Manhasset	HRC Associates 390 Plandome Road	11030	516-627-4644	516-466-3966



Manufacturer's Local Offices

SES – SEMITRONICS CORPORATION

			Zip Code	Telephone No.	TWX
265 Canal Street, New York, New York			10013	212-226-5400	710-581-3978
CALIFORNIA	Encino	David Goldberg Sales Company 17046 Burbank Boulevard	91316	213-986-0400	
PENNSYLVANIA	Philadelphia	David Linz 238 Shelmire Street	19111	215-379-0734	
TEXAS	Dallas	Milton Loss 7919 Royal Lane	75201	214-368-2758	

INTERNATIONAL

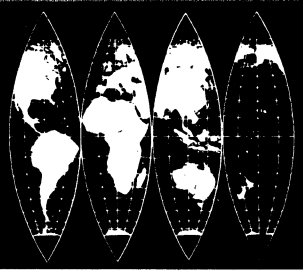
				Telex
GERMANY	46 Dortmund	Semitronics Corporation 26 Bruderweg	0231-528065	HOBAR 822832

SHWG – SIEMENS AKTIENGESELLSCHAFT

			Telephone No.	Telex
Balanstrasse 73, Munich 8, Germany			0811-45901	05-22961
CANADA	Montreal	Siemens Canada, Limited Post Office Box 7300 Pointe-Claire P. Q.	514-695-7300	05-26-7300
ENGLAND	London	Cole Electronics Limited Lansdowne Road Croyden CRg 2HB	01-686-7581	262346

SHWG – SIEMENS AMERICA, INCORPORATED

			Zip Code	Telephone No.	Telex
5310 North Siemens Court, Rosemont, Illinois			60018	312-825-8104	254-052
CALIFORNIA	San Francisco	Siemens America, Inc. 860 Hinckley Road Burlingame	94010	415-697-9445	WU 34 761
NEW JERSEY	Union	Siemens America, Inc. Post Office Box 1268	07083	201-688-5400	138225 TWX 710-985-4702



Manufacturer's Local Offices

SGSI – SOCIETA GENERALE SEMICONDUTTORI S.p.A.

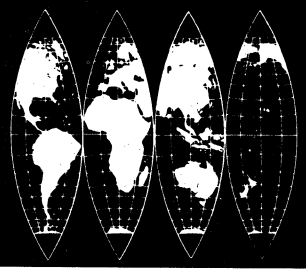
			Telephone No.	Telex
Agrate Brianza, Via C. Olivetti, 1			65341/4	31436
ENGLAND	Aylesbury Bucks	SGS (United Kingdom) Ltd. Walton Street	5977	83245
FRANCE	Paris 13e	SGS France SA 45 Rue Eugene Oudine	336 36 30	25938
GERMANY	809 Wasserburg Inn	SGS Deutschland GmbH Post Box 1269	2086	525743
ITALY	Milano	Societa Generale Semiconduttori Spa Via Colonna, 9	31 57 49	
SWEDEN	19501 Marsta	SGS Semiconductor AB Postbox	0760/40120	10932

SSI – SOLID STATE DEVICES, INC.

			Zip Code	Telephone No.	TWX
12741 Los Nietos Road, Santa Fe Springs, California			90670	213-698-0529	910-586-1881
CALIFORNIA	Pasadena	William Kath Associates 255 West State	91105	213-681-3352	
	Manhattan Beach	Hein & Associates 215 South Poinsettia	90266	213-374-5439	
ILLINOIS	Chicago	Communications Engineers 7106 North Western Avenue	60645	312-761-0548	910-221-5004

INTERNATIONAL

				Telex
ENGLAND	London	Ultra Electronics Ltd. North West 10 35-37 Park Royal Road	01-965-5744	263136



SONY – SONY CORPORATION

7-35, Kitashinagawa-6, Shinagawa-Ku, Tokyo, Japan

SPR – SPRAGUE ELECTRIC COMPANY

			Zip Code	Telephone No.
Semiconductor Division, 115 Northeast Cutoff, Worcester, Massachusetts			01606	617-853-5000
ALABAMA	Huntsville	Write to Washington, D. C. Office..... or call Operator and ask for WX4000		WX 4000 No charge for WX Calls
ARIZONA	Phoenix	Sprague Electric Company Guaranty Bank Building 3550 North Central Avenue	85012	602-279-5435
CALIFORNIA (Northern)	San Francisco	William J. Purdy of California 770 Airport Boulevard Burlingame	94010	415-347-7701
(Southern)	Los Angeles	Sprague Electric Company 12870 Panama Street	90066	L. A. 213-870-0161 S. M. 213-391-0611
COLORADO	Denver	Sprague Electric Company 5670 East Evans Avenue	80222	303-756-3611
CONNECTICUT	Trumbull	Sprague Electric Company Trumbull Park Business Center 935 White Plains Road	06611	203-261-2551
DISTRICT OF COLUMBIA	Washington	Sprague Electric Company 3900 Wisconsin Ave., N. W.	20016	202-244-6006
FLORIDA	Clearwater	Sprague Electric Company 1439 Gulf to Bay Boulevard	33515	813-446-0466
ILLINOIS	Chicago	Sprague Electric Company 5942 West Montrose Avenue	60634	312-685-6400
	Schiller Park	Sprague Electric Company 9950 Lawrence Avenue	60176	312-678-2262

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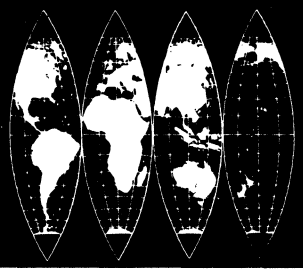

SPR – SPRAGUE ELECTRIC COMPANY CONTINUED

			Zip Code	Telephone No.
Semiconductor Division, 115 Northeast Cutoff, Worcester, Massachusetts			01606	617-853-5000
INDIANA	Indianapolis	Sprague Electric Company 2511 East 46th Street	46205	317-546-4911
MASSACHUSETTS	Boston	Sprague Electric Company 343 Washington Street Newton	02158	617-969-7640
	North Adams	Sprague Electric Company Marshall Street	01247	413-664-4411
MICHIGAN	Ann Arbor	Sprague Electric Company 259 Collingwood	48103	313-761-4080
	Detroit			313-Enterprise 7498
MINNESOTA	Minneapolis	H. M. R., Inc. 9 East 22nd Street	55404	612-335-7734
MISSOURI	St. Ann	Sprague Electric Company 500 Northwest Plaza	63074	314-291-2500
NEW JERSEY	Cherry Hill	Sprague Electric Company 1050 North Kings Highway	08034	609-667-4444 215-925-3066 (Phila.)
(Southern)	Camden	Sprague Electric Company Suite 106 Northgate Plaza	08102	609-966-1776 215-925-3066 (Phila.)
NEW MEXICO	Albuquerque	C. T. Carlberg & Associates Post Office Box 3177 Station D	87110	505-265-1579
NEW YORK	New York City	Sprague Electric Company 50 East 41st Street	10017	212-679-1195
	Eastchester	William Rutt, Inc. 475 White Plains Road	10709	914-779-4100
NEW YORK	Upstate	Sprague Electric Company Marshall Street North Adams, Massachusetts	01247	413-664-4411
NORTH CAROLINA	Winston-Salem	Sprague Electric Company 928 Burke Street	27101	919-722-5151

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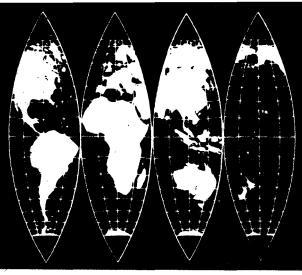

SPR — SPRAGUE ELECTRIC COMPANY CONTINUED

			Zip Code	Telephone No.
Semiconductor Division, 115 Northeast Cutoff, Worcester, Massachusetts			01606	617-853-5000
OHIO	Cleveland	Sprague Electric Company 24 North Main Street Chagrin Falls, Ohio	44022	216-247-6488
	Dayton	Sprague Electric Company 224 Leo Street In Cincinnati, Call Operator and ask for ENterprise 3-8805. No charge for ENterprise Calls.	45404	513-223-9187
PENNSYLVANIA	Eastern	Sprague Electric Company 1050 North Kings Highway Cherry Hill, New Jersey	08036	215-467-5252 (Phila.) 609-667-4444 (Camden)
	Western	Sprague Electric Company 24 North Main Street Chagrin Falls, Ohio	44022	216-247-6488
TEXAS	Dallas	Sprague Electric Company Suite 545 First Bank and Trust Building Richardson, Texas	75080	214-235-1256
WASHINGTON	Seattle	Sprague Electric Company 4601 Aurora Avenue North	98103	206-632-7761
CANADA	Toronto	Sprague Electric of Canada, Ltd. 10 Bertal Road Toronto 15		416-766-6123
	Montreal	Sprague Electric of Canada Ltd. 860 Decarie Boulevard Ville St. Laurent, 9 P. Q.		514-747-7811

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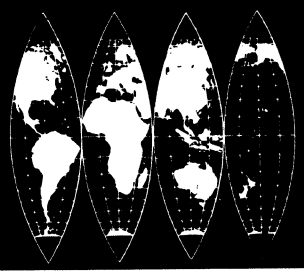
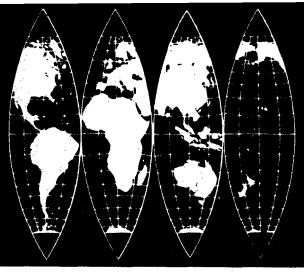


SPR – SPRAGUE ELECTRIC COMPANY CONTINUED

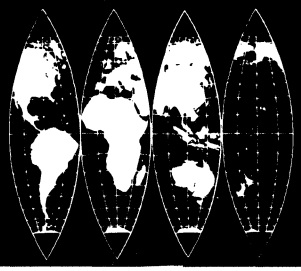
			Zip Code	Telephone No.	Telex
Semiconductor Division, 115 Northeast Cutoff, Worcester, Massachusetts			01606	617-853-5000	
EUROPE	Belguim	Electromag Division Sprague World Trade Corp. 2 Rue de Merode Renaix-Ronse		055-230-55	
	England	Sprague Electric (U.K.) Limited Trident House, Station Road Hayes, Middlesex		01 573 8833	261524
	France	Sprague France Sarl 14-16, rue Gabriel Peri 92-Montrouge		655-1919	Sprague 25697F
	Germany	Sprague GmbH Kettenhofweg 131 6000 Frankfurt am Main		77-50-72 77-59-17	414008
	Italy	Sprague-Creas S.p.A. Viale Legioni Romane 27 20147 Milano		4034245	32012
		Sprague Creas S.p.A. Via Costantino Maes 82 Int. 2-B Palazzino 00162, Rome		83-33-96	
	Switzerland	Sprague World Trade Corporation Farberstrasse 6 8008 Zurich		(051) 47 01 33	53876
FAR EAST	Hong Kong	Sprague Work Trade Corporation Post Office Box 14289		(H)-610694	



Manufacturer's Local Offices

TADI – TADIRAN

			Telephone No.	Cable
Israel Electronics Industries Limited 3 Derech Hashalom (Post Office Box 648), Tel-Aviv, Israel			254222	TADIRAN Telex 033-537
HOLLAND	The Hague	Ingenieursbureau Koning en Hartman Koperwerf 30	070-67.83.80	INKOHA
BELGIUM	Bruxelles	Neotron Electronics S. A. 37, Rue de Florence	38 61 73	CETEREL
DENMARK	Copenhagen	Paul Lovhoj Meinunsgade 30	(01) 39 2112	PAULEMI COPENHAGEN
SWEDEN	Stockholm	ALLHBO, Allmanna Handelsaktiebolaget, Stockholm 49 Box 49044 (Alstronmergatan 20)	22 46 00	ALLHABO
WEST BERLIN	Berlin	H. J. Stoeckle Industrievertrieb Abt. Technik + Elektronik Berlin 38, Klopstockstrasse 37a	84 25 06	
ITALY	Rome	Dr. Ing. Luigi Rebecchini Dr. Marco Calabresi Via XX Settembre 4	46 55 74	
SWITZERLAND	Zurich	Metronic - AG CH 8051 Zurich Postfach Dubendorfstrasse 22	051/41 84 84	METRONIC ZURICH
FINLAND	Helsinki	KO–MA Huovitie 3, Helsinki 40 Helsinki 40	57 84 33	TOUR
SOUTH AFRICA	Johannesburg	Identronics Proprietary Limited Manufacturers' Representatives Professional Electronic Components Sheerline House, 24 Weber Street Selby, Johannesburg Post Office Box 7, Jeppestown, Transvaal	83 49 71/2/3	FORMSHEER JOHANNESBURG



Manufacturer's Local Offices

TAGS – TRANSISTOR AG

			Zip Code	Telephone No.	Telex
SWITZERLAND	Zurich	Transistor AG Hohlstrasse 610/612	8048	62 56 11	53809
ENGLAND	London, E. C. 2	TAG Shelley House Noble Street		606 8991	25251
GERMANY	Karlsruhe-Durlach	Transistor Bau-und Vertriebs GmbH. Straehlerweg 57.....75		0721 69 38 01	7-826-879

TII – TEXAS INSTRUMENTS INCORPORATED

			Zip Code	Telephone No.
Components Group, 13500 North Central Expressway, Post Office Box 5012, Dallas, Texas			75222	214-238-2011
ALABAMA	Huntsville	Texas Instruments Sahara Office Park Building Suite 111, 3313 Memorial Parkway, S. W.	35801	205-881-4061
ARIZONA	Phoenix	Texas Instruments 2535 W. Camelback Road Suite 1 D	85017	602-279-5531
CALIFORNIA	Hollywood	Texas Instruments 1800 North Argyle Avenue	90028	213-466-7251
	Inglewood	Texas Instruments 5005 West Century Boulevard Suite 208	90301	213-673-3943
	Palo Alto	Texas Instruments 230 California Avenue Suite 201	94306	415-326-6770
	Santa Ana	Texas Instruments 1505 East 17th Street Suite 201	92701	714-547-6506
	San Diego	Texas Instruments 4185 Adams Avenue	92116	714-284-1181
COLORADO	Denver	Texas Instruments 2186 South Holly Street Suite 204	80222	303-757-8548

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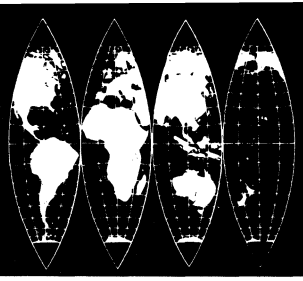

TII – TEXAS INSTRUMENTS INCORPORATED CONTINUED

			Zip Code	Telephone No.
Components Group, 13500 North Central Expressway, Post Office Box 5012, Dallas, Texas			75222	214-238-2011
CONNECTICUT	Woodbridge	Texas Instruments 300 Amity Road	06525	203-389-4521
FLORIDA	Orlando	Texas Instruments Orlando Executive Park 5400 Diplomat Circle Diplomat Bldg., Suite 252	32810	305-644-3535
	St. Petersburg	Texas Instruments 300 West Building 3151 Third Avenue North	33704	813-898-0807
ILLINOIS	Chicago	Texas Instruments Executive Towers Suite 205 5901 North Cicero Avenue	60646	312-286-1000
MASSACHUSETTS	Waltham	Texas Instruments 60 Hickory Drive	02154	617-891-8450
MICHIGAN	Southfield	Texas Instruments Suite 706 West Northland Towers Bldg. 15565 Northland Drive	48075	313-352-5720
MINNESOTA	Edina	Texas Instruments 7615 Metro Blvd. Suite 202, A. I. C. Bldg.	55424	612-941-4384
NEW JERSEY	Springfield	Texas Instruments 25 U. S. Highway No. 22 Post Office Box 366	07081	201-376-9400
NEW YORK	Endicott	Texas Instruments Post Office Box 87 2209 East Main	13760	607-785-9987
	Fishkill	Texas Instruments 167 Main Street	12524	914-896-6793
	New Hyde Park	Texas Instruments 4 Nevada Drive	11040	516-488-2200
	Syracuse	Texas Instruments 6563 Ridings Road	13206	314-463-9291

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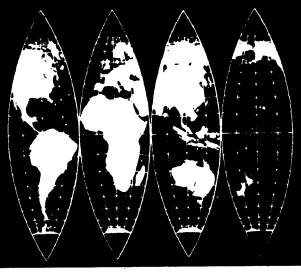
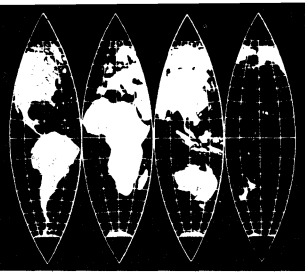


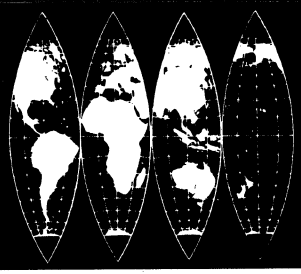
TII – TEXAS INSTRUMENTS INCORPORATED CONTINUED

			Zip Code	Telephone No.
Components Group, 13500 North Central Expressway, Post Office Box 5012, Dallas, Texas			75222	214-238-2011
OHIO	Cleveland	Texas Instruments 23811 Chagrin Boulevard Suite 100	44122	216-464-1192
	Dayton	Texas Instruments Paul Welch Building Suite 205 3300 South Dixie Drive	45439	513-298-7513
PENNSYLVANIA	Jenkintown	Texas Instruments Benjamin Fox Pavilion Suite 424 Foxcroft Square	19046	215-885-3454
TEXAS	Dallas	Texas Instruments MS-80 SRO Department Post Office Box 5012 Mail Station 80	75222	214-238-4861
		Texas Instruments MS-288 TIEG Department Post Office Box 5012 Mail Station 288	75222	214-238-2616
	Houston	Texas Instruments 3801 Kirby Building Suite 600	77006	713-526-3268
WASHINGTON	Seattle	Texas Instruments 5801 Sixth Avenue South	98108	206-762-4240
WASHINGTON	D. C	Texas Instruments 1875 Connecticut Avenue, N. W. Suite 913	20009	202-234-9320
CANADA	Ontario	Geophysical Service, Inc. 280 Centre Street West Richmond Hills		416-889-7373
	Quebec	Texas Instruments 663 Orly Avenue, Dorval		819-631-6010



TEK – TRANS–TEK MANUFACTURING COMPANY, INC.

			Zip Code	Telephone No.
4405 South Clinton Avenue, South Plainfield, New Jersey			07080	201-561-2400
CALIFORNIA (Northern)	Palo Alto	Alexis Sales Company 770 Welch Road	94304	415-328-7995
ILLINOIS (Northern) INDIANA WISCONSIN (Milwaukee) MINNESOTA (St. Paul)	Highland Park	Feller Associates 3065 University Avenue	60035	312-433-3651
MARYLAND VIRGINIA DELAWARE D. C.	Gaitherburg	Wright Company, Inc. 19003 Coltfield Court	20760	301-948-5588
NEW JERSEY (Northern) NEW YORK (Metropolitan) LONG ISLAND WESTCHESTER (Southern)	Edison	Mars Sales, Inc. 55 National Road	08817	201-287-2855
NEW YORK (Upstate)	Baldwinsville	Scibetta Representatives 7484 River Road	13027	315-652-7324
OHIO	Dayton	Downs Engineering Company 1435 DeLynn Drive	45459	513-885-2238
WASHINGTON IDAHO (Western) MONTANA (Western) OREGON BRITISH COLUMBIA	Seattle	Bergford & Associates 5600 California Avenue S. W.	98116	206-937-6664



WESY – WESTINGHOUSE ELECTRIC CORPORATION

			Zip Code	Telephone No.
Semiconductor Division, Youngwood, Pennsylvania			15697	412-925-7272
CALIFORNIA	Sunnyvale	Westinghouse Electric Corporation Building 73 Hendy Avenue	94088	408-735-2191
ILLINOIS	Chicago	Westinghouse Electric Corporation 10 South Riverside Plaza	60606	312-461-7200
MASSACHUSETTS	Boston	Westinghouse Electric Corporation 800 Boyleston Street	02199	617-542-0600
NEW YORK	Mineola	Westinghouse Electric Corporation 1501 Franklin Avenue	11501	516-248-9810
OHIO	Cleveland	Westinghouse Electric Corporation 55 Public Square	44113	216-579-2174
	Dayton	Westinghouse Electric Corporation 1306 Farr Drive	45404	513-461-3720

SECTION 18

SEMICONDUCTOR MOUNTING HARDWARE AVAILABILITY

Manufacturer's Capability Grid

Company Name & Address	FSCM No.	Free Convection Dissipators 1	Forced Convection Dissipators 2	Thermal Connector Dissipator 3	Sockets 4	Hardware Kits 5	Miscellaneous (Bushings - Pads - Washers) 6	Special Notes for Column 6
Aavid Engrg. Inc. 28 Arch Street Laconia, N. H. 03246		X	X	X			X	
Accel Electronic Prods. Co. 3040 N. San Gabriel Blvd. S. San Gabriel, Calif. 91777	26701	X	X					
Amperex Electronic Corporation Slatersville, R. I. 02876	73445	X		X				
Asheville-Schoonmaker Mica Co 900 Jefferson Ave. Newport News, Virginia 23607	91500				X			Mica Insulators for transistors and rectifiers
Astrodyne, Inc. 207 Cambridge Street Burlington, Mass. 01803	28023	X	X				X	Berylco Insulators
Atlee Corporation 2 Lowell Avenue Winchester, Mass. 01890	99378			X				
Augat, Inc. 33 Perry Avenue Attleboro, Mass. 02703	91506	X		X	X	X		
Azimuth Electronics Route 10, Box 463 Denville, N. J. 07834					X			
Barnes Development Co. 24 N. Lansdowne Avenue Lansdowne, Penna. 19050	99779				X		X	Carriers and Contractors for I. C. s
Birtcher Corporation 745 S. Monterey Pass Road Monterey Park, Calif. 91754	07387	X		X				
Blinn, Delbert Company 1678 E. Fifth Avenue P. O. Box 2007 Pomona, Calif. 91766	08289	X	X		X	X	Nylon Bushings Mica Insulator Transipad	Beryllium Oxide Insulator
Cinch Manufacturing Co. 1026 S. Homan Avenue Chicago, Illinois 60624	71785				X			
Daedalus Company 129 Rosecrans Avenue Manhattan Beach, Calif. 90266	17326	X						
Delco Radio Division 700 East Firmin Street Kokomo, Indiana 46901	16758	X				X		
H. H. Eby Company 4701 Germantown Avenue Philadelphia, Penna. 19144	72825				X			
Elco Corporation Maryland Rd. & Computer Ave. Willow Grove, Penna. 19090	91662				X			
Electronic Molding Corp. 40 Church Street Pawtucket, R. I. 02860	17117				X			

SECTION 18

SEMICONDUCTOR MOUNTING HARDWARE AVAILABILITY

Manufacturer's Capability Grid

Company Name & Address	FSCM No.	Free Convection Dissipators 1	Forced Convection Dissipators 2	Thermal Connector Dissipator 3	Sockets 4	Hardware Kits 5	Miscellaneous (Bushings - Pads - Washers) 6	Special Notes for Column 6
Frenchtown, C. F. I., Inc. Frenchtown, New Jersey 08825	72531			X				
Garlock, Inc. 8 Fellowship Road Cherry Hill, N. J. 08034	00373				X			
Grayhill, Inc. 569 Hillgrove Avenue La Grange, Illinois 60525	81073				X			
Hellermann Electric Ltd. Gatwick Road Crawley, Sussex, England	10515	X			X		X	
Hobson Brothers, Inc. 4949 W. Lawrence Avenue Chicago, Illinois 60630	03523	X						
Horex Electronics Inc. 1729 21st Street Santa Monica, Calif. 90404		X	X					
Industrial Electronic Hdwe Co. 109 Prince Street New York, New York 10012	97913				X			
Intl. Electronic Res. Corp. 135 W. Magnolia Burbank, California 91502	98978	X	X	X		X	X	
Jettron Products, Inc. 58 Route 10, Box 7 Hanover, N. J. 07936	04435				X			
Lockhart Industries, Inc. 15707 Texaco Avenue Paramount, California 90723	27110	X						
Loranger Manufacturing Corp. P. O. Box 948 Warren, Penna. 16365	11535				X			
MacDonald & Company 213 South Brand Blvd. Glendale, Calif. 91204	13102	X						
Methode Electronic Inc. 7447 W. Wilson Avenue Chicago, Illinois 60656	95354			X	X			
Navcor Valley Forge Industrial Park Norristown, Penna. 19406							X	
Pomona Electronic Co., Inc. 1500 E. Ninth Street Pomona, California 91766	05276							
Reliance Mica Co., Inc. 341-39th Street Brooklyn, New York 10018	08530						X	Transistor and Diode Washers
Risk, George, Ind. 672 15th Avenue Columbus, Nebraska 68601	24229	X	X					

SECTION 18

SEMICONDUCTOR MOUNTING HARDWARE AVAILABILITY

Manufacturer's Capability Grid

Company Name & Address	FSCM No.	Free Convection Dissipators 1	Forced Convection Dissipators 2	Thermal Connector Dissipator 3	Sockets 4	Hardware Kits 5	Miscellaneous (Bushings - Pads - Washers) 6	Special Notes for Column 6
Roberts, R. O. Co., Inc. 8338 S. Allport Avenue Santa Fe Springs, Calif 90670		X						
Robinson-Nugent Incorporated 802 E. Eighth Street New Albany, Indiana 47150	06776				X	X	X	Specials Only
Ross, Milton Company P.O. Box 274, Second St. Pike Southampton, Penna. 18966	07047	X			X	X	X	IC Carriers IC Sockets Dual Inline Sockets & Test Sockets
Space Products Inc. 2235 E. Artesia Blvd. Long Beach, California 90805	10012	X	X				X	
Staver Company 41-51 North Saxon Avenue Bay Shore, N. Y. 11706	04232	X	X	X				
Textool Products 1410 Pioneer Drive Irving, Texas 75060	19613				X		X	Custom Precision Molding
Thermalloy Company 8717 Diplomacy Row Dallas, Texas 75247	13103	X	X	X	X	X	X	Pads Insulating Washers
UID Electronic Corp. 4105 Pembroke Road Hollywood, Florida 33021	22753				X			
Vector Electronic Co., Inc. 1100 Flower Street Glendale, California 91201	82893				X			
Vemline Products Co. 455 West Main Street Wykoff, New Jersey 07481	08730	X	X					
Wakefield Engineering Inc. Teal & Audubon Roads Wakefield, Mass. 01880	05820	X	X	X			X	Adhesives
Waldom Electronic Co., Inc. 4625 West 53rd Street Chicago, Illinois 60632	92219				X	X	X	

SECTION 19

MOUNTING HARDWARE

Manufacturer's Local Offices

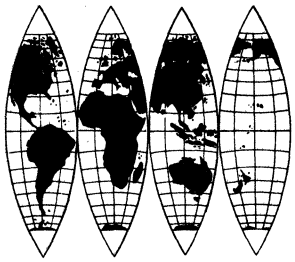
Since mounting hardware is so closely related to the use of solid-state devices, this section of Mounting Hardware Manufacturers Local Offices will provide you with nearby sources of product information.

THE BIRTCHER CORPORATION

	Zip Code	Telephone No.	TWX
Industrial Division, 745 Monterey Pass Road, Post Office Box D Monterey Park, California	91754	213-268-8584	910-321-3076

I. T. C. TOR

	Zip Code	Telephone No.
16202 E. Arrow Hwy., P. O. Box 2008, Irwindale, California	91706	213-334-4907 213-334-0241



Manufacturer's Local Offices

LORANGER MANUFACTURING COMPANY

			Zip Code	Telephone No.
Post Office Box 948, Warren, Pennsylvania			16365	814-723-8600
CALIFORNIA	Los Angeles	William Anderson Associates Post Office Box 45768	90045	213-776-1163
	San Jose	Reyko Sales Company 2136 The Alameda	95126	408-246-1556
NEW JERSEY	Manasquan	Budd Cato Associates 200 Atlantic Avenue	08736	201-223-3842
TEXAS	Dallas	T. M. Curtis Company, Inc. 5635 Yale Boulevard	75206	214-361-1666

RELIANCE MICA COMPANY, INC.

	Zip Code	Telephone No.
341 39th Street, Brooklyn, New York	11232	212-788-0282 212-788-4867

THERMALLOY COMPANY

			Zip Code	Telephone No.	TWX
8717 Diplomacy Row, Dallas, Texas			75247	214-637-3333	910-861-4410
CALIFORNIA	Los Angeles	Thermalloy Company 1930 Wilshire Blvd. Suite 1017	90057	213-483-0910	
ILLINOIS	Chicago	Thermalloy Company 6414 W. Belmont Avenue	60634	312-283-0713	910-221-2515
NEW JERSEY NEW YORK	Englewood	Thermalloy Company 409 Grand Avenue	07631	201-567-5880	710-991-9727

NOTES

We feel you may have some useful comments which deserve consideration for future editions. Please complete and return to us the **User Feedback Card** which you will find inside front cover.

SECTION 20 MANUFACTURERS CODES, NAMES & ADDRESSES

QPL MFR. DESIG.	FSCM No.	DATA MFRS.' CODE	
—		AKER	A/S Akers Electronics, Forskningsvn, 1, Horten, Norway
CDAG	15818	AML	**Amelco Semiconductor, 1300 Terra Bella Ave., Mountain View, California 94040**
—		ANOA	Anodeon Semiconductor Division, Electronics Park, Hamilton Street, Huntingdale, Victoria, Australia
CEP	73445	APX	**Amperex Electronic Corp., Semiconductor and Receiving Tube Division, Slatersville, Rhode Island 02876**
—		ASC	American Semiconductor Corp., 4 North Hickory Avenue, Arlington Heights, Illinois 60004
—		ATEI	**(ATES) Componetti Elettronici S.p.A., Via Tempesta 2, Milan, Italy**
—		BELI	Bharat Electronics Limited, Jalahalli PO, Bangalore. 13, South India
		BNT	**Burns & Towne Inc., 18-36 Granite Street, Haverhill, Mass. 01830**
CCSQ	07910	CDC	**Continental Device Corp., 12515 Chadron Avenue, Hawthorne, California 90250**
—	12549	CDLF	Compagnie Industrielle Francaise Des Tubes Electroniques, 50 Rue J. P. Timbaud, Courbevoie 92, France
		CNS	Continental Semi-Conductor Inc., 59 Central Avenue, East Farmingdale, New York 11735
—	12498	CRY	Crystalonics Division, Teledyne Inc., 147 Sherman St., Cambridge, Mass. 02138
CGM	16758	DEL	**Delco Radio Div., General Motors Corp., Kokomo, Ind. 46901**
		DETM	Delsa-Toshiba, S.A., Calzada Aurora No. 303, Cuautitlan, Edo de Mexico
CCZL	12954	DIC	Dickson Electronics Corp., 310 South Wells Fargo Ave., Scottsdale, Ariz. 85252
		ECD	Electronic Components Division of United Aircraft, Trevose, Penna. 19047
		ESMF	★ Societe Europeenne De Semiconducteurs, Et De Microelectronique, 101 Boulevard Murat, Paris 16o, France
—	12045	ETC	**Electronic Transistors Corp., 153-13 Northern Blvd., Flushing, New York 11354**
—	26611	FCAJ	Fujitsu Limited, No. 1015 Kamikodanaka, Kawasaki City, Kanagawa Perfecture, Japan
—	12264	FERB	**Ferranti Ltd., Gem Mill, Chadderton, Oldham, Lancs., England**
CFJ	07263	FSC	Fairchild Semiconductor Division, 313 Fairchild Drive, Mountain View, California 94040
CG	03508	GESY	General Electric Company, Semiconductor Products Dept., Building 7, Electronics Park, Syracuse, New York 13201
CAKK	14936	GIC	**General Instrument Corporation, P.O. Box 600, Hicksville, New York 11802**
—		GSI	General Sensors, Inc., P. O. Box 231, Athens, Texas 75751
—	92645	HITJ	Hitachi Ltd., Electronic Device & Component Division, New Marunouchi Bldg., 4, 1-chome, Marunouchi, Chiyoda-ku, Tokyo, Japan
		HSC	Helios Semiconductor Company, 500 Dyer Road, Santa Ana, California 92707
—		HUGS	**Emihus Microcomponents Limited, Glenrothes, Fife, Scotland**
		IDC	**International Diode Corporation, 90 Forrest Street, Jersey City, New Jersey 07304**
—	17884	INTG	Intermetall, Halbleiterwerk der, Deutsche ITT Industries GmbH, 78 Freiburg im Breisgau, Hans-Bunte Strabe 19, Germany
CCUX	08225	ITC	Industro Transistor Corp., 35-10 36th Ave., Long Island City, New York 11106
—	15238	ITT	**ITT Semiconductors, 3301 Electronics Way, West Palm Beach, Florida 33047**
—	20754	KMC	KMC Semiconductor Corp., Parker Road, R.D. 2, Long Valley, New Jersey 07853
CCZN	14805	KSC	KSC Semiconductor Corporation, KSC Way (Katrina Road), Chelmsford, Massachusetts 01824
—	18822	LTTF	Lignes Telegraphiques & Telephoniques, 89 Rue de la Faisanderie, Paris 16, France
—		LUCB	**Joseph Lucas (ELEC.), Ltd., Mere Green Works, Mere Green Road, Four Oaks, Sutton Coldfield, Warwickshire, England**
—	01619	MATJ	Matsushita Electronics Corp., 300 Oaza Nishiiozumi, Takatsuki, Osaka, Japan
		MINA	Miniwatt, Div. of Philips Electrical Pty. Ltd., 20 Herbert Street, Artarmon, N.S.W., Australia
—		MISI	(MISTRAL) Manifattura Intereuropea Semi-conduttori Transistori Latina, Via Carnevali 113, Milan, Italy
—	90144	MITJ	**Mitsubishi Electric Corporation, 2-12 Marunouchi, Chiyoda-ku, Tokyo, Japan**
CGG	04713	MOTA	Motorola Semicon. Products, 5005 East McDowell Road, Phoenix, Ariz. 85008
—	24433	MST	**MS Transistor Corporation, Subsidiary of Silicon Transistor Corp., 80-02 51st Avenue, Elmhurst, New York 11373**
—	92726	MULB	Mullard Limited, Mullard House, Torrington Pl., London W. C. 1, England
—	94091	NECJ	Nippon Electric Co., Ltd., 1753 Shimonumabe, Kawasaki City, Japan
—	08257	NPC	Nucleonic Products Co., Inc., Nucleonic Components Devices Division, 6660 Variel Ave., Canoga Park, California 91303
CCXP	12040	NSC	**National Semiconductor Corporation, 2975 San Ysidro Way, Santa Clara, California 95051**
—		NTLB	Newmarket Transistors Ltd., Exning Road, New Market, Cambridge, England
—	36204	PHIC	**Philips Electron Devices, Ltd., 116 Vanderhoof Avenue, Toronto 17, Ontario, Canada**

★ New Manufacturers

Manufacturers shown in bold print have local offices which are included in Section 17 of this D.A.T.A.B O O K.

SECTION 20 MANUFACTURERS CODES, NAMES & ADDRESSES

QPL MFR. DESIG.	FSCM No.	DATA MFRS.' CODE		
CBRZ	87216	PHIL	—	Philco Corporation, Micro-Electronics Division, Union Meeting Road, Blue Bell, Pennsylvania 19422
	08967	PHIN	—	Philips Gloelampenfabrieken, Eindoven, Netherlands
		PIR	—	**Pirgo Electronics Inc., P.O. Box 397, Farmingdale, Long Island, New York 11735**
		PPC	—	Power Physics Corporation, Industrial Way West, P.O. Box 626 Eatontown, New Jersey 07724
		QDC	—	**Qualidyne Corporation, 3699 Tahoe Way, Santa Clara, Calif. 95051**
		RADF	—	La Radiotechnique, Div. Tubes Electroniques, 130 Ave. Ledru Rollin, Paris Ile, France
		RAYI	—	Raytheon - Elsi, Via Villagrazia, N. 79, Palermo, Italy
CAP	07933	RAYN	—	Raytheon Sompany, Semiconductor Division, 350 Ellis Street, Mountain View, California 94040
CRC	02735	RCA	—	Radio Corp. of America, Electronic Components and Devices, Somerville, New Jersey 08876
		ROSG	—	Dr. Ing. Rudolph Rost, Ubbenstrasse 21, Hanover 1, Germany
		SAKJ	—	Sanken Electric Co., Ltd., 1-22-8 Nishi-Ikebukuro, Toshima-ku, Tokyo, Japan
		SCA	★	**Semicoa, 940 South Ajax Avenue, City of Industry, California 91744**
		SELB	—	Semiconductor Division, Plessey Company Ltd., Cheney Manor, Swindon, Wiltshire, England
		SEN	★	Sensitron Inc., Sensitron Semiconductor Division, 225 Paularino Avenue, Costa Mesa, California 92626
		SES	—	**Semitronics Corporation, 265 Canal Street, New York, N. Y. 10013**
		SGSI	—	**Societa Generale Semiconduttori SpA SGS, Via C. Olivetti 1, Agrate, Milano, Italy**
		SHEJ	—	Shindengen Electric Mfg. Co. Ltd., 4, 2-chome Ohtemachi, Chiyoda-ku, Tokyo, Japan
	92346	SHWG	—	**Siemens Aktiengesellschaft, Semiconductor Division, Balanstrasse 73, 8000 Munich 8, Germany**
CCSX	07256	SIL	—	Silicon Transistor Corp., East Gate Blvd., Garden City, L. I., N. Y. 11532
	17856	SIX	—	Siliconix Incorporated, 1140 West Evelyn Avenue, Sunnyvale, California 94086
		SLA	—	Sensitron Semiconductor, A Sensitron Company, 45 Sea Cliff Avenue, Glen Cove, New York 11542
		SLCB	—	Semitron Limited, Cricklade, Wiltshire, England
	13327	SOD	—	Solitron Devices, 256 Oak Tree Road, Tappan, New York 10983
	16402	SOIF	—	Soc. Indus. de Laisons Electriques, 64 bis Rue de Monceau, Paris 8e, France
	18175	SONY	—	**SONY Corp., 351 Kitashinagawa-6, Shinagawa-ku, Tokyo, Japan**
		SPC	—	Solid Power Corporation, 440 Eastern Parkway, Farmingdale, New York 11735
CSF	56289	SPR	—	**Sprague Electric Co., North Adams, Mass. 01247**
	11911	SSE	—	Solid State Electronics Co., 15321 Rayen St., Sepulveda, California 91343
	30043	SSI	—	**Solid State Devices Inc., 12741 Los Nietos Road, Santa Fe, California 90670**
CDAM	08732	SSP	—	Solid State Products, 1 Pingree Street, Salem, Massachusetts 01970
		SSS	—	Solid State Scientific Inc., Montgomeryville Industrial Center, Montgomeryville, Pennsylvania 18936
		STCB	—	Standard Telephones & Cables, Footscray, Sidcup, Kent, England
		STL	—	Stow Laboratories, Inc., Kane Industrial Drive, Hudson, Massachusetts 01749
		TADI	—	**Tadiran, Israel Electronics Industries Ltd. 3, Derech Hashalom (P. O. Box 648), Tel-Aviv, Israel**
		TAGS	—	**Transistor AG, Hohlstrasse 610, Zurich 9/ Switzerland**
CCAB	03877	TEC	—	Transitron Electronic Corp., 168 Albion St., Wakefield, Mass. 01880
		TEK	—	**Trans-Tek Manufacturing Company, 4405 South Clinton Avenue, South Plainfield, New Jersey 07080**
		TFKG	—	**Allgemeine Elektricitats-Gesellschaft AEG Telefunken, 71 Heilbronn (Neckar), Postfach 1042, West Germany**
CGO	01295	TII	—	**Texas Instruments Inc., Components Group, P. O. Box 5012, Dallas, Texas 75222**
		TIIB	—	Texas Instruments Ltd., Manton Lane, Bedford, England
		TIIF	—	Texas Instruments France, Villeneuve - Loubet (A.M.), France
	18657	TOSJ	—	Tokyo Shibaura Electric Co., 1 Komukaitoshiba Cho, Kawasaki, Japan
CCNL	01281	TRW	—	TRW Semiconductors, Inc., 14520 Aviation Blvd., Lawndale, Calif. 90260
		TSAJ	—	Tokyo Sanyo Electric Co., Ltd., Semiconductor Div., Oizumimachi, Oragun Gumma, Japan
	22229	UCC	—	Union Carbide Corp., Linde Div., 365 Middlefield Road, Mountain View, Calif. 94040
		UEHK	—	**Micro Electronics Ltd., Kwun Tong, Hong Kong**
	17895	VALG	—	VALVO GmbH, Hamburg 1, Germany
CWL	05277	WESY	—	**Westinghouse Electric Corp., Semiconductor Dept., Youngwood, Pennsylvania 15697**

★ New Manufacturers

Manufacturers shown in bold print have local offices which are included in Section 17 of this D.A.T.A.BOOK.

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  - Low-Power Silicon NPN
  - Low-Power FET's, N-Channel
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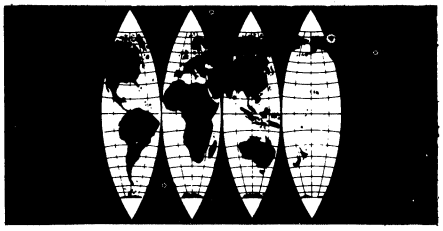

TRANSISTOR D.A.T.A.BOOK

WINTER 1969

SUPPLEMENT

Designed For Convenient Storage in . . .

BACK COVER POCKET
OF

FALL 1969

27TH EDITION

CHANGES REFLECTED IN THIS SUPPLEMENT

New Types Added	1,273
Types With Revised Specifications	488
Types and Manufacturers Added	3,805
Types and Manufacturers Deleted	1,854
TOTAL TYPE NUMBERS INCLUDED	1,761
New Manufacturers Added	0
Manufacturers Deleted	0
TOTAL MANUFACTURERS	95

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TYPE No.	MFRS	TYPE No.	MFRS	TYPE No.	MFRS	TYPE No.	MFRS
JAN2N174A	MOTA	2N2018	SEN	2N3434	SEN	2N4393	APX
2N297	MOTA	2N2019	SEN	2N3445	SEN	2N4416	APX
2N297A	DEL	2N2020	SEN	2N3446	SEN	2N4865	SEN
JAN2N297A	MOTA	2N2021	SEN	2N3447	SEN	2N4866	SEN
2N389	SEN	2N2032	SEN	2N3448	SEN	2N4877	MOTA
2N389A	SEN	2N2033	SEN	JAN2N3449	MOTA	2N4907	MOTA
JAN2N398A	MOTA	2N2034	SEN	2N3467	RAYN	2N4908	MOTA
2N424	RAYN	2N2036	SEN	JAN2N3467	MOTA	2N4909	MOTA
2N424	SEN	JAN2N2060	MOTA	2N3468	RAYN	2N4932	SEN
2N424A	SEN	JAN2N2079A	MOTA	JAN2N3468	MOTA	2N4933	SEN
2N497	RCA	2N2101	SEN	2N3470	SEN	JAN2N4948	MOTA
JAN2N501A	MOTA	2N2150	SEN	2N3471	SEN	JAN2N4949	MOTA
2N513	TII	2N2151	SEN	2N3472	SEN	2N4950	SEN
2N513A	TII	JAN2N2218	APX	2N3473	SEN	2N4964	NSC
2N513B	TII	JAN2N2219	APX	2N3474	SEN	2N4976	SEN
2N514	TII	JAN2N2221	APX	2N3475	SEN	2N4998	SEN
2N514A	TII	JAN2N2222	APX	2N3476	SEN	2N5000	SEN
2N514B	TII	JAN2N2222	TRW	2N3477	SEN	2N5050	MOTA
2N524	TII	JAN2N2222A	TRW	JAN2N3485A	MOTA	2N5051	MOTA
2N534	NSC	JAN2N2273	MOTA	JAN2N3486A	MOTA	2N5052	MOTA
2N656	RCA	2N2364	TRW	2N3487	SEN	2N5211	ITT
JAN2N700A	MOTA	2N2364A	TRW	2N3488	SEN	2N5212	ITT
JAN2N705	MOTA	2N2383	SEN	2N3489	SEN	2N5213	ITT
JAN2N706	APX	2N2384	SEN	2N3490	SEN	2N5214	ITT
JAN2N706	MOTA	JAN2N2432	NSC	2N3491	SEN	2N5216	ITT
2N707	TRW	JAN2N2481	MOTA	2N3492	SEN	2N5217	ITT
2N709	RAYN	JAN2N2528	MOTA	2N3543	ITT	2N5242	FSC
2N717	TRW	2N2537	TRW	2N3551	SEN	2N5243	FSC
JAN2N718A	MOTA	2N2538	TRW	2N3552	SEN	2N5270	MOTA
JAN2N718A	TRW	2N2539	TRW	JAN2N3553	MOTA	2N5271	MOTA
2N759	NSC	2N2540	TRW	JAN2N3553	NSC	2N5272	MOTA
2N759A	NSC	2N2551	HUG	2N3597	SEN	2N5287	MOTA
2N909	TRW	2N2580	SEN	2N3598	SEN	2N5581	MOTA
JAN2N916	TRW	2N2581	SEN	2N3599	SEN	2N5582	MOTA
2N917	TRW	2N2582	SEN	2N3621	SEN	2N5644	MOTA
JAN2N962	MOTA	2N2583	SEN	2N3622	SEN	2N5645	MOTA
JAN2N964	MOTA	2N2632	SEN	2N3623	SEN	2N5646	MOTA
JAN2N1008B	MOTA	2N2633	SEN	2N3624	SEN	2SA183	TSAJ
JAN2N1011	DEL	2N2634	SEN	2N3625	SEN	2SA218	TSAJ
JAN2N1011	MOTA	2N2643	SEN	2N3626	SEN	2SA220	TSAJ
2N1015	SEN	2N2658	SEN	2N3627	SEN	2SA224	TSAJ
2N1015A	SEN	2N2697	SEN	2N3628	SEN	2SA225	TSAJ
2N1015B	SEN	2N2698	SEN	2N3629	SEN	2SA226	TSAJ
2N1015C	SEN	2N2781	SEN	2N3630	SEN	2SA227	TSAJ
2N1015D	SEN	2N2782	SEN	2N3713	DEL	2SA228	TSAJ
2N1015E	SEN	2N2783	SEN	2N3714	DEL	2SA260	TSAJ
2N1016	SEN	2N2811	SEN	2N3715	DEL	2SA261	TSAJ
2N1016A	SEN	2N2812	SEN	2N3716	DEL	2SA262	TSAJ
2N1016B	SEN	2N2813	SEN	2N3726	NSC	2SA263	TSAJ
2N1016C	SEN	2N2814	SEN	2N3727	NSC	2SA264	TSAJ
2N1016D	SEN	2N2815	SEN	2N3744	SEN	2SA265	TSAJ
2N1016E	SEN	2N2816	SEN	2N3745	SEN	2SA323	TSAJ
2N1024	NSC	2N2817	SEN	2N3746	SEN	2SA324	TSAJ
JAN2N1120	MOTA	2N2818	SEN	2N3747	SEN	2SA359	TSAJ
2N1208	SEN	2N2819	SEN	2N3748	SEN	2SA404	NECJ
2N1209	SEN	2N2820	SEN	2N3749	SEN	2SA419	TSAJ
2N1210	SEN	2N2821	SEN	2N3750	SEN	2SA420	TSAJ
2N1211	SEN	2N2822	SEN	2N3751	SEN	2SA421	TSAJ
2N1212	SEN	2N2823	SEN	2N3752	SEN	2SA427	TSAJ
2N1235	SEN	2N2824	SEN	JAN2N3810	MOTA	2SA428	TSAJ
2N1250	SEN	2N2825	SEN	JAN2N3811	MOTA	2SB23	TSAJ
2N1252	RAYN	2N2828	SEN	2N3818	SEN	2SB24	TSAJ
2N1253	RAYN	JAN2N2834	MOTA	2N3823	APX	2SB215	TSAJ
2N1319	TII	2N2850-1	SEN	2N3846	SEN	2SB216	TSAJ
JAN2N1412	DEL	2N2851-1	SEN	2N3847	SEN	2SB217	TSAJ
JAN2N1412A	MOTA	2N2852-1	SEN	2N3848	SEN	2SB254	TSAJ
2N1429	SPR	2N2853-1	SEN	2N3848	TIIB	2SB255	TSAJ
2N1439	NSC	2N2866	SEN	2N3849	SEN	2SB256	TSAJ
JAN2N1506A	TRW	2N2867	SEN	2N3850	SEN	2SB271	TSAJ
JAN2N1549A	MOTA	2N2874	SEN	2N3851	SEN	2SB272	TSAJ
JAN2N1550A	MOTA	2N2887	SEN	2N3852	SEN	2SB273	TSAJ
JAN2N1551A	MOTA	2N2892	SEN	2N3924	TIIB	2SB342	TSAJ
JAN2N1552A	MOTA	2N2893	SEN	2N3926	TIIB	2SB343	TSAJ
JAN2N1553A	MOTA	2N2904A	ITT	2N3970	APX	2SB349	TSAJ
JAN2N1554A	MOTA	2N2905A	ITT	2N3971	APX	2SB350	TSAJ
JAN2N1555A	MOTA	2N2906A	ITT	2N3972	APX	2SB372	TSAJ
JAN2N1556A	MOTA	2N2907A	ITT	2N3996	SEN	2SB373	TSAJ
JAN2N1557A	MOTA	2N2968	CRY	2N3997	SEN	2SB374	TSAJ
JAN2N1558A	MOTA	2N2969	CRY	2N3998	SEN	2SB375	TSAJ
JAN2N1559A	MOTA	2N2970	CRY	2N3999	SEN	2SB390	TSAJ
JAN2N1560A	MOTA	2N2971	CRY	2N4002	SEN	2SB391	TSAJ
2N1564	NSC	2N2999	MOTA	2N4003	SEN	2SC60	TSAJ
JAN2N1613	MOTA	2N3012	NSC	2N4004	SEN	2SC64	TSAJ
JAN2N1613	TRW	2N3033	NSC	2N4005	SEN	2SC66	TSAJ
2N1616	SEN	2N3034	NSC	2N4040	SEN	2xOC308	BRUB
2N1616A	SEN	JAN2N3127	MOTA	2N4041	SEN	3N62	NSC
2N1617	SEN	2N3128	NSC	2N4070	SEN	3N63	NSC
2N1617A	SEN	2N3129	NSC	2N4071	SEN	3N64	NSC
2N1618	SEN	2N3130	NSC	2N4091	APX	3N65	NSC
2N1618A	SEN	2N3138	SEN	2N4092	APX	3N66	NSC
2N1620	SEN	2N3139	SEN	2N4093	APX	3N67	NSC
2N1647	SEN	2N3140	SEN	2N4127	SEN	3N68	NSC
2N1648	SEN	2N3141	SEN	2N4128	SEN	3N69	NSC
2N1649	SEN	2N3142	SEN	2N4130	ITT	3N70	NSC
2N1650	SEN	2N3143	SEN	2N4130	SEN	3N74	NSC
2N1690	SEN	2N3144	SEN	2N4131	SEN	3N75	NSC
2N1691	SEN	2N3145	SEN	2N4132	ITT	3N76	NSC
2N1708	SGSI	2N3149	SEN	2N4210	SEN	3N77	NSC
2N1722	SEN	2N3150	SEN	2N4211	SEN	3N78	NSC
2N1723	SEN	2N3151	SEN	2N4221	APX	3N79	NSC
2N1724	SEN	2N3227	SCA	2N4221A	APX	3N90	NSC
2N1724A	SEN	2N3244	RAYN	2N4222	APX	3N91	NSC
2N1725	SEN	2N3245	RAYN	2N4222A	APX	3N92	NSC
2N1853	RCA	2N3247	NSC	2N4305	SEN	3N93	NSC
JAN2N1853	RCA	2N3265	SEN	2N4306	SEN	3N94	NSC
2N1854	RCA	2N3266	SEN	2N4307	SEN	3TE467	ITT
JAN2N1854	RCA	JAN2N3375	MOTA	2N4308	SEN	3TE477	ITT
2N1899	SEN	JAN2N3375	NSC	2N4309	SEN	3TE604	ITT
2N1900	SEN	2N3429	SEN	2N4310	SEN	3TE609	ITT
2N1901	SEN	2N3430	SEN	2N4311	SEN	3TE610	ITT
2N1902	SEN	2N3431	SEN	2N4312	SEN	3TX601	ITT
2N1904	SEN	2N3432	SEN	2N4391	APX	3TX602	ITT
2N1926	TII	2N3433	SEN	2N4392	APX	3TX603	ITT

TYPES IN LAST MAIN EDITION NOW DISCONTINUED BY INDICATED MANUFACTURER

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TYPE No.	MFRS
40461	RCA
A115	SGSI
AC108	SHWG
AC109	SHWG
AC110	SHWG
AC120	SHWG
AC139K/AC142	ATEI
AD103	SHWG
AD104	SHWG
AD105	SHWG
AD156	SHWG
AD157	SHWG
AD166	SHWG
AD167	SHWG
ADY27	SHWG
AF107	SHWG
AF108	SHWG
AF114	SHWG
AF115	SHWG
AF116	SHWG
AF117	SHWG
AF121	SHWG
AF186	MULB
AF186G	MULB
AF186W	MULB
AFY10	SHWG
AFY34	SHWG
ASY67	MULB
AU105	SHWG
AUY10	MULB
BCY13	SHWG
BCY14	SHWG
BCY15	SHWG
BCY16	SHWG
BCY17	SHWG
BCY18	SHWG
BCY19	SHWG
BCY20	SHWG
BCY27	SHWG
BCY28	SHWG
BCY29	SHWG
BD113	SGSI
BF110	SHWG
BF114	SHWG
BFX43	MINA
BFX44	MINA
BFY12	SHWG
BFY13	SHWG
BFY14	SHWG
BFY47	SHWG
BFY48	SHWG
BFY49	SHWG
BFY99	SHWG
BLY22	SHWG
BSX84	SGSI
BSX85	SGSI
BSY61	SHWG
BUY12	SHWG
BUY13	SHWG
BUY14	SHWG
C202	CRY
C301	CRY
C401	CRY
C673	CRY
C674	CRY
D10B551-2,3	GESY
D10B553-2,3	GESY
D10B555-2,3	GESY
D11B551-2,3	GESY
D11B552-2,3	GESY
D11B554-2,3	GESY
D11B560-2,3	GESY
D16E9	GESY
FSP42	SGSI
FSP42-1	SGSI
FSP164	SGSI
FSP165	SGSI
FSP166	SGSI
FSP166-1	SGSI
FSP215	SGSI
FSP242-1	SGSI
FSP270-1	SGSI
FSP289-1	SGSI
FT709	SGSI
FT1315	SGSI
FT3567	FSC
FT3568	FSC
FT3569	FSC
FT3641	FSC
FT3642	FSC
FT3643	FSC
FT3644	FSC
FT3645	FSC
FT3838	SGSI
FT4018	SGSI
FT4354	FSC
FT4355	FSC
FT4356	FSC
FT5040	FSC
FT5041	FSC
MFE2097	MOTA
MFE2098	MOTA
MFE2133	MOTA
MHT1808	SOD
MHT1809	SOD
MHT1810	SOD
MHT1908	SOD
MHT1909	SOD
MHT1910	SOD
MHT2008	SOD
MHT2009	SOD
MHT2010	SOD
MHT2101	SOD
MHT2110	SOD
MHT2111	SOD
MHT2112	SOD
MHT2150	SOD
MHT2151	SOD
MHT2152	SOD
MHT2205	SOD
MHT2305	SOD
MHT4451	SOD
MHT4452	SOD
MHT4453	SOD
MHT4454	SOD
MHT4455	SOD
MHT4456	SOD
MHT4483	SOD
MHT4551	SOD
MHT4552	SOD
MHT4553	SOD
MHT4554	SOD
MHT4555	SOD
MHT4556	SOD
MHT4583	SOD
MHT4611	SOD
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MHT4613	SOD
MHT4614	SOD
MHT4615	SOD
MHT4616	SOD
MHT4617	SOD
MHT4618	SOD
MHT4619	SOD
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MHT5002	SOD
MHT5003	SOD
MHT5004	SOD
MHT5005	SOD
MHT5006	SOD
MHT5007	SOD
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MHT5009	SOD
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MHT5012	SOD
MHT5013	SOD
MHT5014	SOD
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MHT5054	SOD
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MHT5505	SOD
MHT5506	SOD
MHT5507	SOD
MHT5508	SOD
MHT5509	SOD
MHT5510	SOD
MHT5511	SOD
MHT5512	SOD
MHT5513	SOD
MHT5514	SOD
MHT5515	SOD
MHT5551	SOD
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MHT5553	SOD
MHT5554	SOD
MHT5555	SOD
MHT5556	SOD
MHT5901	SOD
MHT5902	SOD
MHT5903	SOD
MHT5904	SOD
MHT5905	SOD
MHT5906	SOD
MHT5907	SOD
MHT5908	SOD
MHT5909	SOD
MHT5910	SOD
MHT5911	SOD
MHT5912	SOD
MHT5913	SOD
MHT5914	SOD
MHT5915	SOD
MHT6001	SOD
MHT6011	SOD
MHT6012	SOD
MHT6013	SOD
MHT6014	SOD
MHT6015	SOD
MHT6016	SOD
MHT6031	SOD
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MHT6309	SOD
MHT6310	SOD
MHT6311	SOD
MHT6312	SOD
MHT6313	SOD
MHT6314	SOD
MHT6315	SOD
MHT6316	SOD
MHT6408	SOD
MHT6409	SOD
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MHT6413	SOD
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MHT7013	SOD
MHT7014	SOD
MHT7015	SOD
MHT7016	SOD
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MHT7019	SOD
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MHT7204	SOD
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MHT7515	SOD
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MHT7517	SOD
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MHT8012	SOD
MHT8013	SOD
MHT8015	SOD
MHT8016	SOD
MHT8045	SOD
MHT8070	SOD
MHT8071	SOD
MHT8301	SOD
MHT8302	SOD
MHT8303	SOD
MHT8304	SOD
MHT8920	SOD
MHT8921	SOD
MHT8922	SOD
MHT8923	SOD
MHT9001	SOD
MHT9002	SOD
MHT9003	SOD
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MHT9006	SOD
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MHT9008	SOD
MHT9009	SOD
MHT9010	SOD
MHT9011	SOD
MHT9012	SOD
MP2060-1	MOTA
MP2060-2	MOTA
MP2060-3	MOTA
MP2060-4	MOTA
MP2060-5	MOTA
MP2060-6	MOTA
MP2060-7	MOTA
MP2061-1	MOTA
MP2061-2	MOTA
MP2061-3	MOTA
MP2061-4	MOTA
MP2061-5	MOTA
MP2061-6	MOTA
MP2061-7	MOTA
MP2062-1	MOTA
MP2062-2	MOTA
MP2062-3	MOTA
MP2062-4	MOTA
MP2062-5	MOTA
MP2062-6	MOTA
MP2062-7	MOTA
MP2063-1	MOTA
MP2063-2	MOTA
MP2063-3	MOTA
MP2063-4	MOTA
MP2063-5	MOTA
MP2063-6	MOTA
MP2063-7	MOTA
MU10	MOTA
MU20	MOTA
NS404	NSC
NS661	NSC
NS662	NSC
NS663	NSC
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NS665	NSC
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NS667	NSC
NS668	NSC
NS1510	NSC
NS2310	NSC
NS2311	NSC
NS6201	NSC
NS6203	NSC
NS6205	NSC
NS6213	NSC
NS6214	NSC
OC20	MULB
OC26	MULB
OC30	MULB
OC57	MULB
OC58	MULB
OC59	MULB
OC60	MULB
OC65	MULB
OC66	MULB
OC122	MULB
OC123	MULB
SDT1000	SOD
SDT1001	SOD
SDT1002	SOD
SDT1003	SOD
SDT1004	SOD
SDT1005	SOD
SDT1006	SOD
SDT1007	SOD
SDT1011	SOD
SDT1012	SOD
SDT1013	SOD
SDT1014	SOD
SDT1015	SOD
SDT1016	SOD
SDT1017	SOD
SE1010	SGSI
SE6020A	FSC
SE6021A	FSC
SE7015	FSC
SE7016	FSC
SE7017	FSC
SE8012	FSC
SE8040	FSC
SE8540	FSC
SL404	NSC
SP8400	SGSI
SP8402	SGSI
TA-D93	TADI
TA-M93	TADI
TF49	SHWG
TF65	SHWG
TF65/30	SHWG
TF66	SHWG
TF66/30	SHWG
TF66/60	SHWG
TF78	SHWG
TF80/30	SHWG
TF80/60	SHWG
TF80/80	SHWG
TIP27	TIIB
TK3055	TEK
U89	SIX
U182	SIX
U205	SIX
U206	SIX
U207	SIX
V120	SHWG

TYPES IN LAST EDITION NOW HAVING ADDITIONAL SOURCES OF SUPPLY

USE THIS LISTING WITH THE CROSS INDEX OF THE LAST MAIN EDITION TO DETERMINE ALL SOURCES OF SUPPLY FOR A PARTICULAR TYPE NO.

TYPE No.	MFRS	TYPE No.	MFRS	TYPE No.	MFRS	TYPE No.	MFRS
2N34	CNS	2N188A	SES	2N317A	CNS	2N396A	SES
2N34A	CNS	2N189	CNS	2N319	CNS	2N397	CNS
2N35	CNS	2N189	SES	2N319	SES	2N397	SES
2N36	CNS	2N190	CNS	2N320	CNS	2N398	CNS
2N37	CNS	2N190	SES	2N320	SES	2N398	SES
2N38	CNS	2N191	CNS	2N321	CNS	2N398A	CNS
2N43	CNS	2N191	SES	2N321	SES	2N398A	SES
2N43A	CNS	2N192	CNS	2N322	CNS	2N398B	CNS
2N43A	SES	2N192	SES	2N322	GIC	2N399	CNS
2N44	CNS	2N193	CNS	2N322	SES	2N400	CNS
2N44A	CNS	2N194	CNS	2N323	CNS	2N401	CNS
2N44A	SES	2N194A	CNS	2N323	GIC	2N402	CNS
2N45	CNS	2N207	CNS	2N323	SES	2N403	CNS
2N45	GIC	2N207A	CNS	2N324	CNS	2N405	CNS
2N45A	CNS	2N207B	CNS	2N324	GIC	2N405	GIC
2N59	CNS	2N211	CNS	2N324	SES	2N406	CNS
2N59A	CNS	2N212	CNS	2N326	CNS	2N406	GIC
2N59C	CNS	2N213	CNS	2N327A	CNS	2N407	CNS
2N60	CNS	2N213A	CNS	2N327B	CNS	2N407	GIC
2N60A	CNS	2N214	CNS	2N328A	CNS	2N408	CNS
2N60B	CNS	2N214A	CNS	2N328B	CNS	2N408	GIC
2N60C	CNS	2N215	CNS	2N329A	CNS	2N409	CNS
2N61	CNS	2N216	CNS	2N329B	CNS	2N410	CNS
2N61A	CNS	2N217	CNS	2N330A	CNS	2N411	CNS
2N61B	CNS	2N218	CNS	2N331	CNS	2N412	CNS
2N61C	CNS	2N219	CNS	2N331	SES	2N413	SES
2N63	CNS	2N220	CNS	2N332A	CNS	2N414	SES
2N64	CNS	2N223	CNS	2N333A	CNS	2N414A	CNS
2N65	CNS	2N224	CNS	2N335A	CNS	2N414B	CNS
2N77	CNS	2N225	CNS	2N335B	CNS	2N414C	CNS
2N78	CNS	2N226	CNS	2N336A	CNS	2N415	CNS
2N78A	CNS	2N227	CNS	2N337	CNS	2N415A	CNS
2N94	CNS	2N228	CNS	2N337A	CNS	2N418	CNS
2N94A	CNS	2N229	CNS	2N338	CNS	2N419	CNS
2N97	CNS	2N231	CNS	2N338A	CNS	2N420	CNS
2N98	CNS	2N233	CNS	2N339	CNS	2N422	CNS
2N103	CNS	2N233A	CNS	2N339	SSI	2N424	CNS
2N104	CNS	2N234A	CNS	2N339A	CNS	2N426	SES
2N105	CNS	2N235A	CNS	2N339A	SSI	2N427	SES
2N106	CNS	2N235B	CNS	2N340	CNS	2N428	SES
2N107	CNS	2N236A	CNS	2N340	SSI	2N428A	CNS
2N107	SES	2N236B	CNS	2N340A	CNS	2N438A	CNS
2N108	CNS	2N237	CNS	2N340A	SSI	2N439A	CNS
2N109	CNS	2N238	CNS	2N341	CNS	2N440A	CNS
2N111	CNS	2N240	CNS	2N341	SSI	2N441	CNS
2N111A	CNS	2N241A	CNS	2N341A	CNS	2N441	SOD
2N112	CNS	2N241A	SES	2N341A	SSI	2N442	CNS
2N112A	CNS	2N242	CNS	2N342	CNS	2N442	SOD
2N113	CNS	2N243	CNS	2N342	SSI	2N443	CNS
2N114	CNS	2N244	CNS	2N342A	SSI	2N443	SOD
2N117	CNS	2N249	CNS	2N342B	SSI	2N444	CNS
2N118	CNS	2N250	CNS	2N343	CNS	2N444A	CNS
2N119	CNS	2N250A	CNS	2N343	SSI	2N445	CNS
2N119	SSI	2N251	CNS	2N343A	CNS	2N445A	CNS
2N120	CNS	2N251A	CNS	2N343A	SSI	2N446	CNS
2N122	CNS	2N252	CNS	2N343B	CNS	2N446A	CNS
2N123	CNS	2N253	CNS	2N343B	SSI	2N447	CNS
2N124	CNS	2N254	CNS	2N344	CNS	2N448	CNS
2N125	CNS	2N255	CNS	2N345	CNS	2N449	CNS
2N126	CNS	2N255A	CNS	2N346	CNS	2N450	CNS
2N128	SSI	2N256	CNS	2N350	CNS	2N456	CNS
2N130	CNS	2N256A	CNS	2N350A	CNS	2N456A	CNS
2N130A	CNS	2N257	CNS	2N351	CNS	2N456A	TII
2N131	CNS	2N257B	CNS	2N351A	CNS	2N456B	CNS
2N131A	CNS	2N257G	CNS	2N356	CNS	2N457	CNS
2N132	CNS	2N257W	CNS	2N357	CNS	2N457A	CNS
2N132A	CNS	2N263	CNS	2N357A	CNS	2N457A	TII
2N133	CNS	2N264	CNS	2N358	CNS	2N457B	CNS
2N133A	CNS	2N265	CNS	2N358A	CNS	2N458	CNS
2N135	CNS	2N268	CNS	2N359	CNS	2N458A	CNS
2N136	CNS	2N268A	CNS	2N360	CNS	2N458A	TII
2N137	CNS	2N269	CNS	2N361	CNS	2N458B	CNS
2N139	CNS	2N270	CNS	2N362	CNS	2N459	CNS
2N145	CNS	2N271	CNS	2N363	CNS	2N459A	CNS
2N155	CNS	2N271A	CNS	2N364	CNS	2N460	CNS
2N160	CNS	2N272	CNS	2N365	CNS	2N460	SES
2N162A	CNS	2N273	CNS	2N366	CNS	2N461	CNS
2N163	CNS	2N274	CNS	2N367	CNS	2N461	SES
2N164	CNS	2N277	CNS	2N368	CNS	2N464	CNS
2N164A	CNS	2N277	SOD	2N369	CNS	2N464	SES
2N165	CNS	2N278	CNS	2N375	CNS	2N465	CNS
2N166	CNS	2N278	SOD	2N376	CNS	2N465	SES
2N167	CNS	2N279	CNS	2N376A	CNS	2N466	CNS
2N167A	SES	2N280	CNS	2N377	CNS	2N466	SES
2N168	CNS	2N281	CNS	2N377A	CNS	2N467	CNS
2N169	CNS	2N282	CNS	2N378	CNS	2N467	SES
2N169	SES	2N283	CNS	2N379	CNS	2N470	CNS
2N169A	CNS	2N284	CNS	2N380	CNS	2N471	CNS
2N169A	SES	2N284A	CNS	2N381	CNS	2N471A	CNS
2N170	CNS	2N291	CNS	2N381	SES	2N472	CNS
2N170	SES	2N292	CNS	2N382	CNS	2N472A	CNS
2N172	CNS	2N292	SES	2N382	SES	2N473	CNS
2N173	CNS	2N292A	CNS	2N383	CNS	2N474	CNS
2N173	SOD	2N293	CNS	2N383	SES	2N474A	CNS
2N174	CNS	2N293	SES	2N385	CNS	2N475	CNS
2N174	SOD	2N296	CNS	2N385A	CNS	2N475A	CNS
2N174A	CNS	2N297A	CNS	2N388	CNS	2N476	CNS
2N175	CNS	2N301	CNS	2N388	SES	2N477	CNS
2N176	CNS	2N301A	CNS	2N388A	CNS	2N478	CNS
2N178	CNS	2N302	CNS	2N388A	SES	2N479	CNS
2N180	CNS	2N303	CNS	2N389	CNS	2N479A	CNS
2N181	CNS	2N306	CNS	2N389A	CNS	2N480	CNS
2N182	CNS	2N307	CNS	2N392	CNS	2N480A	CNS
2N183	CNS	2N307A	CNS	2N393	CNS	2N481	CNS
2N184	CNS	2N308	CNS	2N393	SSI	2N482	CNS
2N185	CNS	2N309	CNS	2N394	CNS	2N483	CNS
2N186	CNS	2N310	CNS	2N394A	CNS	2N484	CNS
2N186A	CNS	2N311	CNS	2N394A	SES	2N485	CNS
2N187	CNS	2N312	CNS	2N395	CNS	2N486	CNS
2N187A	CNS	2N315	CNS	2N395	SES	2N489	CNS
2N187A	SES	2N316	CNS	2N396	CNS	2N489A	CNS
2N188	CNS	2N316A	CNS	2N396	SES	2N489B	CNS
2N188A	CNS	2N317	CNS	2N396A	CNS	2N490	CNS

TYPES IN LAST EDITION NOW HAVING ADDITIONAL SOURCES OF SUPPLY

USE THIS LISTING WITH THE CROSS INDEX OF THE LAST MAIN EDITION TO DETERMINE ALL SOURCES OF SUPPLY FOR A PARTICULAR TYPE NO.

TYPE No.	MFRS	TYPE No.	MFRS	TYPE No.	MFRS	TYPE No.	MFRS
2N490A	CNS	2N576	CNS	2N700	SSI	2N1008A	SES
2N490B	CNS	2N576A	CNS	2N700A	CNS	2N1008B	SES
2N490C	CNS	2N578	CNS	2N700A	SSI	2N1010	CNS
2N491	CNS	2N579	CNS	2N705	CNS	2N1011	CNS
2N491A	CNS	2N580	CNS	2N705A	CNS	2N1012	CNS
2N491B	CNS	2N581	CNS	2N707	CNS	2N1015	CNS
2N492	CNS	2N582	CNS	2N707	SSI	2N1015A	CNS
2N492A	CNS	2N583	CNS	2N707A	CNS	2N1015B	CNS
2N493	CNS	2N584	CNS	2N709	CNS	2N1015C	CNS
2N493A	CNS	2N585	CNS	2N709	SSI	2N1015D	CNS
2N493B	CNS	2N586	CNS	2N709A	CNS	2N1016A	CNS
2N494	CNS	2N587	CNS	2N709A	SSI	2N1016B	CNS
2N494A	CNS	2N588	CNS	2N718A	CNS	2N1017	CNS
2N495	CNS	2N589	CNS	2N719	CNS	2N1018	CNS
2N496	CNS	2N591	CNS	2N719A	CNS	2N1021	CNS
2N497	CNS	2N597	SSI	2N720	CNS	2N1021	TII
2N497A	CNS	2N598	SSI	2N721	CNS	2N1021A	CNS
2N498	CNS	2N599	SSI	2N722	CNS	2N1022	CNS
2N499	SSI	2N600	SSI	2N726	SSI	2N1022	TII
2N499A	SSI	2N601	SSI	2N727	SSI	2N1024	CNS
2N501	CNS	2N609	CNS	2N730	CNS	2N1025	CNS
2N501	SSI	2N610	CNS	2N731	CNS	2N1027	CNS
2N501A	CNS	2N611	CNS	2N734	CNS	2N1031A	CNS
2N501A	SSI	2N612	CNS	2N735	CNS	2N1031B	CNS
2N502	CNS	2N613	CNS	2N735A	CNS	2N1032A	CNS
2N502	SSI	2N614	CNS	2N736A	CNS	2N1034	CNS
2N502A	CNS	2N615	CNS	2N736B	CNS	2N1035	CNS
2N502A	SSI	2N616	CNS	2N738	CNS	2N1036	CNS
2N502B	SSI	2N617	CNS	2N739	CNS	2N1037	CNS
2N503	CNS	2N618	CNS	2N739A	CNS	2N1039	CNS
2N504	CNS	2N627	CNS	2N740	CNS	2N1041	CNS
2N505	CNS	2N628	CNS	2N740A	CNS	2N1042	CNS
2N506	CNS	2N629	CNS	2N741	SSI	2N1046	CNS
2N507	CNS	2N630	CNS	2N742A	CNS	2N1047	CNS
2N508	CNS	2N631	CNS	2N743	CNS	2N1047	SSI
2N508	SES	2N632	CNS	2N752	CNS	2N1047A	SSI
2N508A	CNS	2N633	CNS	2N754	CNS	2N1047B	SSI
2N508A	SES	2N634	CNS	2N755	CNS	2N1048	CNS
2N511	CNS	2N634A	CNS	2N756	CNS	2N1048	SSI
2N511A	CNS	2N635	CNS	2N756A	CNS	2N1048A	CNS
2N511B	CNS	2N635A	CNS	2N757	CNS	2N1048A	SSI
2N512	CNS	2N636	CNS	2N757A	CNS	2N1048B	SSI
2N512A	CNS	2N636A	CNS	2N758	CNS	2N1049	CNS
2N512B	CNS	2N637	CNS	2N758A	CNS	2N1049	SSI
2N513	CNS	2N637A	CNS	2N758B	CNS	2N1049A	CNS
2N513A	CNS	2N637B	CNS	2N759A	CNS	2N1049A	SSI
2N513B	CNS	2N638	CNS	2N760	CNS	2N1049B	CNS
2N514	CNS	2N638A	CNS	2N760A	BNT	2N1049B	SSI
2N514A	CNS	2N638B	CNS	2N761	CNS	2N1050	SSI
2N514B	CNS	2N639	CNS	2N780	CNS	2N1050A	SSI
2N515	CNS	2N639A	CNS	2N784	CNS	2N1050B	SSI
2N516	CNS	2N639B	CNS	2N794	SSI	2N1051	SSI
2N517	CNS	2N647	CNS	2N795	SSI	2N1052	SSI
2N518	CNS	2N649	CNS	2N796	SSI	2N1053	SSI
2N519	CNS	2N650	CNS	2N797	SSI	2N1054	CNS
2N520	CNS	2N650	SES	2N821	SSI	2N1054	SSI
2N521	CNS	2N650	SSI	2N827	SSI	2N1055	CNS
2N522	CNS	2N650A	SES	2N828	SSI	2N1055	SSI
2N523	CNS	2N650A	SSI	2N828A	SSI	2N1057	SES
2N523A	CNS	2N651	CNS	2N829	SSI	2N1086	CNS
2N524	SES	2N651	SES	2N834	CNS	2N1086	SES
2N524A	CNS	2N651	SSI	2N834	NSC	2N1086A	SES
2N525	SES	2N651A	CNS	2N834A	CNS	2N1087	CNS
2N525A	CNS	2N651A	SES	2N841/46	SCA	2N1087	SES
2N526	SES	2N651A	SSI	2N860	CNS	2N1090	CNS
2N527	CNS	2N652	SES	2N861	CNS	2N1091	CNS
2N527	SES	2N652	SSI	2N862	CNS	2N1092	CNS
2N529	CNS	2N652A	CNS	2N863	CNS	2N1093	CNS
2N530	CNS	2N652A	SES	2N869	CNS	2N1097	CNS
2N531	CNS	2N652A	SSI	2N870	CNS	2N1097	SES
2N532	CNS	2N653	CNS	2N871	CNS	2N1098	CNS
2N533	CNS	2N653	SES	2N909	CNS	2N1098	SES
2N535	CNS	2N654	CNS	2N911	CNS	2N1099	CNS
2N535A	CNS	2N654	SES	2N912	CNS	2N1099	SOD
2N535B	CNS	2N655	CNS	2N915	CNS	2N1100	CNS
2N541	CNS	2N655	SES	2N916	CNS	2N1100	SOD
2N542	CNS	2N656	CNS	2N916	SSI	2N1101	CNS
2N542A	CNS	2N656A	CNS	2N916A	SSI	2N1102	CNS
2N543	CNS	2N657	CNS	2N916B	SSI	2N1107	CNS
2N543A	CNS	2N657A	CNS	2N917	CNS	2N1108	CNS
2N545	CNS	2N658	CNS	2N918	CNS	2N1109	CNS
2N546	CNS	2N659	CNS	2N919	CNS	2N1110	CNS
2N547	CNS	2N660	CNS	2N920	CNS	2N1111	CNS
2N548	CNS	2N660	SES	2N921	CNS	2N1114	CNS
2N549	CNS	2N661	CNS	2N922	CNS	2N1116	SSI
2N550	CNS	2N661	SES	2N924	CNS	2N1117	SSI
2N551	CNS	2N662	CNS	2N926	CNS	2N1118	SSI
2N552	CNS	2N662	SES	2N930A/46	SCA	2N1118A	SSI
2N553	CNS	2N665	CNS	2N935	CNS	2N1122	SSI
2N554	CNS	2N669	CNS	2N936	CNS	2N1122A	SSI
2N555	CNS	2N672	CNS	2N939	CNS	2N1124	CNS
2N556	CNS	2N677	CNS	2N943	CNS	2N1125	CNS
2N557	CNS	2N677A	CNS	2N946	CNS	2N1128	CNS
2N558	CNS	2N677B	CNS	2N947	CNS	2N1129	CNS
2N560	CNS	2N677C	CNS	2N956	CNS	2N1130	CNS
2N561	CNS	2N678	CNS	2N957	CNS	2N1131	CNS
2N563	CNS	2N678A	CNS	2N978	CNS	2N1131	MINA
2N564	CNS	2N678B	CNS	2N980	SSI	2N1131A	CNS
2N565	CNS	2N678C	CNS	2N981	SSI	2N1131A	MINA
2N566	CNS	2N679	CNS	2N982	SSI	2N1132	MINA
2N566	GIC	2N680	CNS	2N983	SSI	2N1132A	CNS
2N567	CNS	2N696	TII	2N984	SSI	2N1132A	MINA
2N567	GIC	2N697	CNS	2N985	SSI	2N1136	CNS
2N568	CNS	2N697	TII	2N995	CNS	2N1136A	CNS
2N568	GIC	2N697A	CNS	2N997	CNS	2N1136B	CNS
2N569	CNS	2N698	CNS	2N998	CNS	2N1137	CNS
2N569	GIC	2N699	CNS	2N999	CNS	2N1137A	CNS
2N570	CNS	2N699	SSI	2N1000	CNS	2N1138	CNS
2N570	GIC	2N699A	CNS	2N1000	GIC	2N1138A	CNS
2N571	CNS	2N699A	SSI	2N1007	CNS	2N1139	CNS
2N572	CNS	2N699B	CNS	2N1008	CNS	2N1140	CNS
2N573	CNS	2N699B	SSI	2N1008	SES	2N1144	CNS
2N574	CNS	2N700	CNS	2N1008A	CNS	2N1145	CNS

TYPES IN LAST EDITION NOW HAVING ADDITIONAL SOURCES OF SUPPLY

USE THIS LISTING WITH THE CROSS INDEX OF THE LAST MAIN EDITION TO DETERMINE ALL SOURCES OF SUPPLY FOR A PARTICULAR TYPE NO.

TYPE No.	MFRS	TYPE No.	MFRS	TYPE No.	MFRS	TYPE No.	MFRS
2N1146	CNS	2N1299	CNS	2N1475	CNS	2N1617	CNS
2N1146A	CNS	2N1304	TEK	2N1476	CNS	2N1617A	CNS
2N1147	CNS	2N1305	TEK	2N1477	CNS	2N1618	CNS
2N1147A	CNS	2N1306	CNS	2N1479	CNS	2N1618A	CNS
2N1147B	CNS	2N1306	TEK	2N1480	CNS	2N1620	CNS
2N1149	CNS	2N1307	TEK	2N1481	CNS	2N1623	CNS
2N1149	SSI	2N1308	TEK	2N1482	CNS	2N1624	CNS
2N1150	CNS	2N1309	TEK	2N1483	CNS	2N1647	CNS
2N1150	SSI	2N1309A	CNS	2N1485	CNS	2N1648	CNS
2N1151	CNS	2N1310	SES	2N1486	CNS	2N1649	CNS
2N1151	SSI	2N1311	SES	2N1488	CNS	2N1650	CNS
2N1152	CNS	2N1312	SES	2N1489	CNS	2N1651	CNS
2N1152	SSI	2N1343	CNS	2N1490	CNS	2N1652	CNS
2N1153	CNS	2N1344	CNS	2N1491	CNS	2N1653	CNS
2N1153	SSI	2N1345	CNS	2N1491	SSI	2N1654	CNS
2N1154	CNS	2N1346	CNS	2N1492	SSI	2N1655	CNS
2N1154	SSI	2N1347	CNS	2N1493	SSI	2N1655	SOD
2N1155	CNS	2N1348	CNS	2N1494	SSI	2N1656	CNS
2N1155	SSI	2N1349	CNS	2N1494A	SSI	2N1656	SOD
2N1156	CNS	2N1350	CNS	2N1495	SSI	2N1671	CNS
2N1156	SSI	2N1351	CNS	2N1496	SSI	2N1671A	CNS
2N1157	CNS	2N1352	CNS	2N1499	CNS	2N1671B	CNS
2N1157A	CNS	2N1353	CNS	2N1499	SSI	2N1672	CNS
2N1158	CNS	2N1354	CNS	2N1499A	SSI	2N1672A	CNS
2N1158A	CNS	2N1355	CNS	2N1499B	CNS	2N1700	CNS
2N1159	CNS	2N1356	CNS	2N1499B	SSI	2N1701	CNS
2N1160	CNS	2N1357	CNS	2N1500	SSI	2N1702	CNS
2N1162	CNS	2N1358	CNS	2N1506	CNS	2N1703	CNS
2N1162A	CNS	2N1358	SOD	2N1506A	CNS	2N1704	CNS
2N1163	CNS	2N1359	CNS	2N1507	CNS	2N1705	CNS
2N1164	CNS	2N1360	CNS	2N1510	CNS	2N1705	SES
2N1164A	CNS	2N1362	CNS	2N1518	CNS	2N1706	CNS
2N1165	CNS	2N1363	CNS	2N1519	CNS	2N1706	SES
2N1165A	CNS	2N1364	CNS	2N1520	CNS	2N1707	CNS
2N1167	CNS	2N1365	CNS	2N1521	CNS	2N1707	SES
2N1167A	CNS	2N1366	CNS	2N1522	CNS	2N1708	CNS
2N1168	CNS	2N1367	CNS	2N1529	CNS	2N1709	CNS
2N1169	CNS	2N1370	CNS	2N1529A	CNS	2N1710	CNS
2N1170	CNS	2N1371	CNS	2N1530	CNS	2N1711	TII
2N1171	CNS	2N1372	CNS	2N1531	CNS	2N1711A	CNS
2N1175	CNS	2N1372	SES	2N1531A	CNS	2N1714	CNS
2N1175	SES	2N1373	CNS	2N1532	CNS	2N1715	CNS
2N1175A	SES	2N1373	SES	2N1533	CNS	2N1716	CNS
2N1176	CNS	2N1374	CNS	2N1534	CNS	2N1717	CNS
2N1176A	CNS	2N1374	SES	2N1534A	CNS	2N1718	CNS
2N1185	CNS	2N1375	CNS	2N1535	CNS	2N1719	CNS
2N1185	SES	2N1375	SES	2N1536	CNS	2N1720	CNS
2N1186	CNS	2N1376	CNS	2N1536A	CNS	2N1721	CNS
2N1186	SES	2N1376	SES	2N1537	CNS	2N1722	CNS
2N1187	CNS	2N1377	CNS	2N1537A	CNS	2N1724A	CNS
2N1187	SES	2N1377	SES	2N1538	CNS	2N1725	CNS
2N1188	CNS	2N1378	CNS	2N1539	CNS	2N1726	SSI
2N1188	SES	2N1378	SES	2N1540	CNS	2N1727	SSI
2N1189	CNS	2N1379	CNS	2N1540A	CNS	2N1728	SSI
2N1189	SES	2N1379	SES	2N1542	CNS	2N1729	SSI
2N1190	CNS	2N1380	CNS	2N1542A	CNS	2N1730	SSI
2N1190	SES	2N1380	SES	2N1543	CNS	2N1731	SSI
2N1191	CNS	2N1381	CNS	2N1544	CNS	2N1732	SSI
2N1191	SES	2N1381	SES	2N1544A	CNS	2N1742	SSI
2N1192	CNS	2N1382	CNS	2N1545	CNS	2N1743	SSI
2N1192	SES	2N1382	SES	2N1546	CNS	2N1744	SSI
2N1193	CNS	2N1383	SES	2N1546A	CNS	2N1745	SSI
2N1193	SES	2N1386	CNS	2N1547	CNS	2N1746	SSI
2N1194	CNS	2N1387	CNS	2N1547A	CNS	2N1747	SSI
2N1194	SES	2N1388	CNS	2N1548	CNS	2N1748	SSI
2N1196	SSI	2N1389	CNS	2N1549	CNS	2N1748A	SSI
2N1197	SSI	2N1390	CNS	2N1549A	CNS	2N1749	SSI
2N1198	CNS	2N1391	CNS	2N1550	CNS	2N1751	SSI
2N1206	CNS	2N1395	CNS	2N1550A	CNS	2N1752	SSI
2N1207	CNS	2N1396	CNS	2N1551	CNS	2N1754	SSI
2N1208	CNS	2N1397	CNS	2N1551A	CNS	2N1768	CNS
2N1209	CNS	2N1404	CNS	2N1552	CNS	2N1768	SSI
2N1210	CNS	2N1404	SES	2N1552A	CNS	2N1769	CNS
2N1211	CNS	2N1408	CNS	2N1553	CNS	2N1769	SSI
2N1212	CNS	2N1408	SES	2N1553A	CNS	2N1785	CNS
2N1217	CNS	2N1409	CNS	2N1554	CNS	2N1785	SSI
2N1218	CNS	2N1409A	CNS	2N1554A	CNS	2N1786	CNS
2N1219	CNS	2N1410	CNS	2N1555	CNS	2N1786	SSI
2N1220	CNS	2N1411	CNS	2N1556	CNS	2N1787	CNS
2N1221	CNS	2N1411	SSI	2N1556A	CNS	2N1787	SSI
2N1222	CNS	2N1412	CNS	2N1557	CNS	2N1788	CNS
2N1223	CNS	2N1412	SOD	2N1557A	CNS	2N1788	SSI
2N1227	CNS	2N1413	CNS	2N1558	CNS	2N1789	CNS
2N1228	CNS	2N1413	SES	2N1559	CNS	2N1789	SSI
2N1229	CNS	2N1414	CNS	2N1559A	CNS	2N1790	CNS
2N1230	CNS	2N1414	SES	2N1560	CNS	2N1790	SSI
2N1231	CNS	2N1415	CNS	2N1560A	CNS	2N1809	SSI
2N1232	CNS	2N1415	SES	2N1564	CNS	2N1810	SSI
2N1233	CNS	2N1416	CNS	2N1565	CNS	2N1811	SSI
2N1247	CNS	2N1417	CNS	2N1566	BNT	2N1812	SSI
2N1248	CNS	2N1418	CNS	2N1566	CNS	2N1813	SSI
2N1249	CNS	2N1427	SSI	2N1566A	CNS	2N1814	SSI
2N1250	CNS	2N1429	SSI	2N1572	CNS	2N1816	SSI
2N1251	CNS	2N1439	CNS	2N1573	CNS	2N1817	SSI
2N1252	CNS	2N1440	CNS	2N1574	CNS	2N1818	SSI
2N1253	CNS	2N1441	CNS	2N1586	CNS	2N1819	SSI
2N1254	CNS	2N1442	CNS	2N1587	CNS	2N1820	SSI
2N1255	CNS	2N1443	CNS	2N1588	CNS	2N1823	SSI
2N1256	CNS	2N1445	CNS	2N1589	CNS	2N1824	SSI
2N1257	CNS	2N1446	CNS	2N1590	CNS	2N1825	SSI
2N1258	CNS	2N1447	CNS	2N1591	CNS	2N1826	SSI
2N1259	CNS	2N1448	CNS	2N1592	CNS	2N1830	SSI
2N1260	CNS	2N1449	CNS	2N1593	CNS	2N1831	SSI
2N1261	CNS	2N1450	CNS	2N1594	CNS	2N1832	SSI
2N1262	CNS	2N1451	CNS	2N1605	CNS	2N1833	SSI
2N1263	CNS	2N1452	CNS	2N1605	SES	2N1837	CNS
2N1265	CNS	2N1465	CNS	2N1605A	CNS	2N1838	CNS
2N1266	CNS	2N1466	CNS	2N1613	TII	2N1839	CNS
2N1267	CNS	2N1469	CNS	2N1614	CNS	2N1840	CNS
2N1273	SES	2N1471	CNS	2N1614	SES	2N1853	SSI
2N1274	SES	2N1472	CNS	2N1615	CNS	2N1854	SSI
2N1291	CNS	2N1473	CNS	2N1616	CNS	2N1864	CNS
2N1297	CNS	2N1474A	CNS	2N1616A	CNS	2N1864	SSI

TYPES IN LAST EDITION NOW HAVING ADDITIONAL SOURCES OF SUPPLY

USE THIS LISTING WITH THE CROSS INDEX OF THE LAST MAIN EDITION TO DETERMINE ALL SOURCES OF SUPPLY FOR A PARTICULAR TYPE NO.

TYPE No.	MFRS
2N1865	CNS
2N1865	SSI
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2N1866	SSI
2N1867	CNS
2N1867	SSI
2N1868	CNS
2N1868	SSI
2N1886	CNS
2N1886	SSI
2N1889	CNS
2N1890	CNS
2N1892	CNS
2N1917	CNS
2N1918	CNS
2N1920	CNS
2N1921	CNS
2N1922	CNS
2N1924	CNS
2N1924	SES
2N1925	CNS
2N1925	SES
2N1926	CNS
2N1926	SES
2N1936	SSI
2N1936	TII
2N1937	SSI
2N1937	TII
2N1943	SSI
2N1944	SSI
2N1945	SSI
2N1946	SSI
2N1947	SSI
2N1948	SSI
2N1949	SSI
2N1950	SSI
2N1951	SSI
2N1952	SSI
2N1953	SSI
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2N1954	GIC
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2N1957	CNS
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2N2102A	CNS
2N2106	CNS
2N2107	CNS
2N2108	CNS
2N2110	SSI
2N2111	SSI
2N2112	SSI
2N2113	SSI
2N2114	SSI
2N2116	SSI
2N2117	CNS
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2N2118	SSI
2N2119	SSI
2N2120	SSI
2N2123	SSI
2N2124	SSI
2N2125	SSI
2N2126	SSI
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2N2132	SSI
2N2133	SSI
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2N2154	CNS
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2N2157A	CNS
2N2158A	CNS
2N2168	CNS
2N2169	CNS
2N2170	CNS
2N2171	SES
2N2175	SSI
2N2176	SSI
2N2177	SSI
2N2178	SSI
2N2185	SSI
2N2186	SSI
2N2187	SSI
2N2188	SES
2N2189	SES
2N2190	SES
2N2191	SES
2N2192	CNS
2N2194	CNS
2N2194A	CNS
2N2195	CNS
2N2196	CNS
2N2197	CNS
2N2199	CNS
2N2201	SSI
2N2219A	CNS
2N2220	CNS
2N2221A	CNS
2N2222A	CNS
2N2223	CNS
2N2223A	CNS
2N2236	SSI
2N2237	SSI
2N2239	SSI
2N2243	CNS
2N2243A	CNS
2N2273	SSI
2N2282	CNS
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2N2292	CNS
2N2293	CNS
2N2294	CNS
2N2295	CNS
2N2296	CNS
2N2303	CNS
2N2303	MINA
2N2309	SSI
2N2310	CNS
2N2310	SSI
2N2311	SSI
2N2312	CNS
2N2312	SSI
2N2313	SSI
2N2314	CNS
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2N2337	CNS
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2N2351	CNS
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2N2352A	CNS
2N2353	CNS
2N2357	CNS
2N2368	CNS
2N2369A	CNS
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2N2376	CNS
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2N2412	CNS
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2N2438	SSI
2N2439	SSI
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2N2453	SSI
2N2453A	SSI
2N2459	SSI
2N2460	SSI
2N2461	SSI
2N2462	SSI
2N2463	SSI
2N2464	SSI
2N2465	SSI
2N2466	SSI
2N2475	CNS
2N2476	CNS
2N2479	CNS
2N2480A	CNS
2N2481	CNS
2N2483	VALG
2N2484	CNS
2N2484	VALG
2N2484A	CNS
2N2487	SSI
2N2488	SSI
2N2489	SSI
2N2490	CNS
2N2491	CNS
2N2492	CNS
2N2527	SCA
2N2537	CNS
2N2538	CNS
2N2540	CNS
2N2541	CNS
2N2552	CNS
2N2554	CNS
2N2556	CNS
2N2557	CNS
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2N2562	CNS
2N2563	CNS
2N2564	CNS
2N2565	CNS
2N2566	CNS
2N2566	MOTA
2N2567	CNS
2N2586	CNS
2N2590	SSI
2N2591	CNS
2N2591	SSI
2N2592	CNS
2N2592	SSI
2N2593	CNS
2N2593	SSI
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2N2599	CNS
2N2599	SSI
2N2599A	CNS
2N2599A	SSI
2N2600	CNS
2N2601	CNS
2N2602	CNS
2N2603	CNS
2N2604	BNT
2N2604	CNS
2N2605	BNT
2N2605	CNS
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2N2616	CNS
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2N2636	CNS
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2N2640	CNS
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2N2642	CNS
2N2643	CNS
2N2644	CNS
2N2648	CNS
2N2651	CNS
2N2657	CNS
2N2692	SSI
2N2693	SSI
2N2694	SSI
2N2695	CNS
2N2696	CNS
2N2697	CNS
2N2698	CNS
2N2739	SSI
2N2740	SSI
2N2741	SSI
2N2742	SSI
2N2743	SSI
2N2744	SSI
2N2745	SSI
2N2746	SSI
2N2747	SSI
2N2748	SSI
2N2751	SSI
2N2752	SSI
2N2753	SSI
2N2754	SSI
2N2800	CNS
2N2800	SSI
2N2801	SSI
2N2811	CNS
2N2811	SSI
2N2812	CNS
2N2812	SSI
2N2813	CNS
2N2813	SSI
2N2814	CNS
2N2814	SSI
2N2815	CNS
2N2816	CNS
2N2828	CNS
2N2828	SOD
2N2828	SSI
2N2829	CNS
2N2829	SOD
2N2829	SSI
2N2837	CNS
2N2851	TRW
2N2858	SSI
2N2859	SSI
JAN2N2880	TII
2N2892	CNS
2N2892	TRW
2N2893	CNS
2N2893	TRW
2N2894	CNS
2N2903	CNS
2N2903	SSI
2N2903A	SSI
2N2904	MINA
2N2904A	MINA
2N2905	MINA
2N2905A	MINA
2N2906	MINA
2N2906	VALG
2N2906A	CNS

TYPES IN LAST EDITION NOW HAVING ADDITIONAL SOURCES OF SUPPLY

USE THIS LISTING WITH THE CROSS INDEX OF THE LAST MAIN EDITION TO DETERMINE ALL SOURCES OF SUPPLY FOR A PARTICULAR TYPE NO.

TYPE No.	MFRS	TYPE No.	MFRS	TYPE No.	MFRS	TYPE No.	MFRS
2N2906A	MINA	2N3303	CNS	2N3613	CNS	2N3803	SSI
2N2906A	VALG	2N3311	CNS	2N3614	CNS	2N3804	SSI
2N2907	MINA	2N3312	CNS	2N3615	CNS	2N3804A	SSI
2N2907	VALG	2N3313	CNS	2N3616	CNS	2N3805	SSI
2N2907A	MINA	2N3314	CNS	2N3617	CNS	2N3805A	SSI
2N2907A	VALG	2N3330	MOTA	2N3618	CNS	2N3806	SSI
2N2909	SSI	2N3347	SSI	2N3619	CNS	2N3807	CNS
2N2913	CNS	2N3348	SSI	2N3619	SSI	2N3807	SSI
2N2914	CNS	2N3349	SSI	2N3620	CNS	2N3808	CNS
2N2915	CNS	2N3350	SSI	2N3620	SSI	2N3808	SSI
2N2916	CNS	2N3351	SSI	2N3621	CNS	2N3809	CNS
2N2917	CNS	2N3352	SSI	2N3621	SSI	2N3809	SSI
2N2918	CNS	2N3375	CNS	2N3622	CNS	2N3810	SSI
2N2919	CNS	2N3388	CNS	2N3622	SSI	2N3810A	SSI
2N2919A	BNT	2N3389	CNS	2N3623	SSI	2N3811	SSI
2N2920	CNS	2N3391	CNS	2N3624	SSI	2N3811A	SSI
2N2920A	CNS	2N3391	TEK	2N3625	SSI	2N3812	SSI
2N2923	TEK	2N3391A	CNS	2N3626	SSI	2N3813	SSI
2N2924	TEK	2N3391A	TEK	2N3627	SSI	2N3814	SSI
2N2925	TEK	2N3392	CNS	2N3628	SSI	2N3815	SSI
2N2926	NPC	2N3392	TEK	2N3629	SSI	2N3816	SSI
2N2926	TEK	2N3393	CNS	2N3630	SSI	2N3816A	SSI
2N2927/46	SCA	2N3393	TEK	2N3638	CNS	2N3817	SSI
2N2944	CNS	2N3394	CNS	2N3638	ETC	2N3817A	SSI
2N2945	CNS	2N3394	TEK	2N3638A	CNS	2N3818	SSI
2N2946	CNS	2N3395	CNS	2N3638A	ETC	2N3819	SSI
2N2951	CNS	2N3395	TEK	2N3639	CNS	2N3821	NSC
2N2952	CNS	2N3396	CNS	2N3640	CNS	2N3822	NSC
2N2976	CNS	2N3396	TEK	2N3641	CNS	2N3823	NSC
2N2978	CNS	2N3397	CNS	2N3642	CNS	2N3834	CNS
2N2979	CNS	2N3397	TEK	2N3643	CNS	2N3844	CNS
2N3009	CNS	2N3398	CNS	2N3644	CNS	2N3863	PPC
2N3011	CNS	2N3398	TEK	2N3644	ETC	2N3866	RAYN
2N3012	CNS	2N3402	CNS	2N3645	CNS	2N3877	TEK
2N3014	CNS	2N3403	CNS	2N3645	ETC	2N3877A	TEK
2N3015	CNS	2N3404	CNS	2N3646	BNT	2N3903	BNT
2N3016	CNS	2N3405	CNS	2N3646	CNS	2N3903	NSC
2N3016	SSI	2N3412	CNS	2N3647	CNS	2N3904	BNT
2N3017	SSI	2N3414	TEK	2N3659	CNS	2N3904	CNS
2N3018	SSI	2N3415	CNS	2N3660	SOD	2N3904	NSC
2N3019	CNS	2N3415	TEK	2N3661	CNS	2N3905	BNT
2N3019	SSI	2N3416	CNS	2N3661	SOD	2N3905	NSC
2N3021	SOD	2N3416	TEK	2N3672	CNS	2N3906	BNT
2N3021	SSI	2N3417	CNS	2N3677	SSI	2N3906	CNS
2N3022	SOD	2N3417	TEK	2N3678	CNS	2N3906	NSC
2N3022	SSI	2N3418	CNS	2N3684	NSC	2N3907	CNS
2N3023	SOD	2N3419	CNS	2N3685	CNS	2N3909	MOTA
2N3023	SSI	2N3420	CNS	2N3685	NSC	2N3909A	MOTA
2N3024	SOD	JAN2N3420	TII	2N3686	CNS	2N3910	CNS
2N3024	SSI	2N3421	CNS	2N3686	NSC	2N3924	SOD
2N3025	SOD	JAN2N3421	TII	2N3687	CNS	2N3926	SOD
2N3025	SSI	2N3423	CNS	2N3687	NSC	2N3927	SOD
2N3026	SOD	2N3424	CNS	2N3688	CNS	2N3962	CNS
2N3026	SSI	2N3427	SES	2N3691	CNS	2N3966	CNS
2N3053	BNT	2N3428	SES	2N3691	NPC	2N3970	NSC
2N3054	CNS	2N3429	SSI	2N3692	CNS	2N3971	NSC
2N3054	SOD	2N3439	CNS	2N3692	NPC	2N3972	NSC
2N3055	TEK	2N3439	MST	2N3693	CNS	2N3996	CNS
2N3056	CNS	2N3440	CNS	2N3694	CNS	2N3996	SSI
2N3057	CNS	2N3440	MST	2N3700	CNS	2N3997	CNS
2N3069	CNS	2N3441	SOD	2N3701	CNS	2N3997	SSI
2N3069	NSC	2N3441	TEK	2N3704	SES	2N3998	CNS
2N3070	CNS	2N3442	CNS	2N3705	SES	2N3998	SSI
2N3070	NSC	2N3442	SOD	2N3706	SES	2N3999	CNS
2N3072	CNS	2N3442	TEK	2N3713	CNS	2N3999	SSI
2N3073	CNS	2N3444	TIIB	2N3713	SOD	2N4000	CNS
2N3107	CNS	2N3458	TIIB	2N3714	CNS	2N4002	TRW
2N3108	CNS	2N3459	TIIB	2N3714	SOD	2N4003	TRW
2N3109	CNS	2N3460	TIIB	2N3715	CNS	2N4020	SSI
2N3115	CNS	2N3464	TRW	2N3715	SOD	2N4021	SSI
2N3117	CNS	2N3470	SSI	2N3716	SOD	2N4022	SSI
2N3120	CNS	2N3471	SSI	2N3719	SOD	2N4023	SSI
2N3120	NSC	2N3472	SSI	2N3720	SOD	2N4024	SSI
2N3121	CNS	2N3473	SSI	2N3721	CNS	2N4025	SSI
2N3121	NSC	2N3474	SSI	2N3724	TIIB	2N4026	SSI
2N3133	CNS	2N3475	SSI	2N3724A	TIIB	2N4027	SSI
2N3134	CNS	2N3476	SSI	2N3725	CNS	2N4028	SSI
2N3135	CNS	2N3477	SSI	2N3725	TIIB	2N4029	SSI
2N3136	CNS	2N3487	SSI	2N3725A	TIIB	2N4036	NSC
2N3137	CNS	2N3488	SSI	2N3727	CNS	2N4037	NSC
2N3171	SOD	2N3489	SSI	2N3733	SOD	2N4040	SOD
2N3172	SOD	2N3490	SSI	2N3740	SOD	2N4041	SOD
2N3173	SOD	2N3491	SSI	2N3741	SOD	2N4063	MST
2N3174	SOD	2N3492	SSI	2N3743	MST	2N4064	MST
2N3183	SOD	2N3494	TIIB	2N3744	SSI	2N4066	MOTA
2N3184	SOD	2N3495	TIIB	2N3745	SSI	2N4067	MOTA
2N3185	SOD	2N3496	TIIB	2N3746	SSI	2N4075	SSI
2N3186	SOD	2N3497	TIIB	2N3747	SSI	2N4076	SSI
2N3195	SOD	2N3502	CNS	2N3748	SSI	2N4091	CNS
2N3196	SOD	2N3503	CNS	2N3749	SSI	2N4091	NSC
2N3197	SOD	2N3504	CNS	2N3750	SSI	2N4092	CNS
2N3198	SOD	2N3505	CNS	2N3751	SSI	2N4092	NSC
2N3202	SOD	2N3506	CNS	2N3752	SSI	2N4093	CNS
2N3203	SOD	2N3510	CNS	2N3771	TEK	2N4093	NSC
2N3204	SOD	2N3511	CNS	2N3772	TEK	2N4115	SSI
2N3232	CNS	2N3512	CNS	2N3773	TEK	2N4116	SSI
2N3233	CNS	2N3551	SOD	2N3774	SOD	2N4121	NSC
2N3235	CNS	2N3552	SOD	2N3775	SOD	2N4122	NSC
2N3236	CNS	2N3553	CNS	2N3776	SOD	2N4123	NSC
2N3244	SCA	2N3553	SOD	2N3777	SOD	2N4124	NSC
2N3250	CNS	2N3568	NSC	2N3778	SOD	2N4125	NSC
2N3252	TIIB	2N3591	SSI	2N3779	SOD	2N4126	NSC
2N3253	CNS	2N3593	SSI	2N3780	SOD	2N4127	SOD
2N3261	SSI	2N3594	SSI	2N3781	SOD	2N4127	SSI
2N3262	SSI	2N3597	SSI	2N3782	SOD	2N4128	SOD
2N3298	CNS	2N3597	TRW	2N3789	SOD	2N4128	SSI
2N3299	BNT	2N3598	CNS	2N3790	SOD	2N4130	SSI
2N3300	BNT	2N3598	SSI	2N3791	SOD	2N4132	SSI
2N3300	CNS	2N3598	TRW	2N3792	SOD	2N4140	CNS
2N3301	BNT	2N3599	SSI	2N3800	SSI	2N4140	NPC
2N3301	CNS	2N3599	TRW	2N3801	BNT	2N4141	CNS
2N3302	BNT	2N3611	CNS	2N3801	SSI	2N4141	NPC
2N3302	CNS	2N3612	CNS	2N3802	SSI	2N4142	CNS

TYPES IN LAST EDITION NOW HAVING ADDITIONAL SOURCES OF SUPPLY

USE THIS LISTING WITH THE CROSS INDEX OF THE LAST MAIN EDITION TO DETERMINE ALL SOURCES OF SUPPLY FOR A PARTICULAR TYPE NO.

TYPE No.	MFRS
2N4143	CNS
2N4150	CNS
2N4150	TRW
2N4210	TRW
2N4211	TRW
2N4223	NSC
2N4224	NSC
2N4225	SSI
2N4226	SSI
2N4227	NPC
2N4234	SOD
2N4235	SOD
2N4236	SOD
2N4241	SOD
2N4248	ETC
2N4274	BNT
2N4275	BNT
2N4294	BNT
2N4295	BNT
2N4301	SSI
2N4301	TRW
2N4306	SSI
2N4308	SSI
2N4310	SSI
2N4312	SSI
2N4349	SSI
2N4350	CNS
2N4350	SSI
2N4351	CNS
2N4354	CNS
2N4354	ETC
2N4354	NSC
2N4355	CNS
2N4355	ETC
2N4355	NSC
2N4356	CNS
2N4356	ETC
2N4356	NSC
2N4357	CNS
2N4358	CNS
2N4360	MOTA
2N4384	NSC
2N4386	NSC
2N4388	CNS
2N4391	CNS
2N4391	NSC
2N4392	CNS
2N4392	NSC
2N4393	CNS
2N4393	NSC
2N4395	CNS
2N4396	CNS
2N4398	CNS
2N4399	CNS
2N4416	CNS
2N4416	NSC
2N4416A	NSC
2N4428	SOD
2N4429	SOD
2N4430	SOD
2N4431	SOD
2N4433	CNS
2N4436	CNS
2N4436	NPC
2N4437	CNS
2N4437	NPC
2N4856	NSC
2N4856A	NSC
2N4857	NSC
2N4857A	NSC
2N4858	NSC
2N4858A	NSC
2N4859	NSC
2N4859A	NSC
2N4860	NSC
2N4860A	NSC
2N4861	NSC
2N4861A	NSC
2N4862	CNS
2N4863	CNS
2N4864	CNS
2N4896	CNS
2N4898	SOD
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2N4900	CNS
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2N4912	CNS
2N4913	CNS
2N4916	NSC
2N4917	NSC
2N4930	MST
2N4931	MST
2N4944	CNS
2N4944	NPC
2N4945	CNS
2N4945	NPC
2N4946	CNS
2N4946	NPC
2N4951	CNS
2N4951	TEK
2N4952	CNS
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2N4995	CNS
2N4996	CNS
2N4997	CNS
2N4998	SOD
2N4999	SOD
2N5000	SOD
2N5001	SOD
2N5002	TRW
2N5003	SOD
2N5004	TRW
2N5005	SOD
2N5006	SOD
2N5006	SSI
2N5007	SOD
2N5008	SOD
2N5008	SSI
2N5009	SOD
2N5010	CNS
2N5011	CNS
2N5012	CNS
2N5013	CNS
2N5014	CNS
2N5015	CNS
2N5016	SOD
2N5027	CNS
2N5028	CNS
2N5033	CNS
2N5040	CNS
2N5041	CNS
2N5042	CNS
2N5048	SSI
2N5048	TRW
2N5055	CNS
2N5056	CNS
2N5057	CNS
2N5058	MST
2N5059	MST
2N5070	SOD
2N5078	NSC
2N5084	TRW
2N5085	TRW
2N5089	CNS
2N5091	CNS
2N5091	MST
2N5092	CNS
2N5093	CNS
2N5093	MST
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2N5094	MST
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2N5096	MST
2N5097	CNS
2N5098	CNS
2N5099	CNS
2N5100	CNS
2N5100	MST
2N5101	CNS
2N5102	CNS
2N5102	SOD
2N5109	SOD
2N5126	CNS
2N5127	CNS
2N5128	CNS
2N5129	CNS
2N5129	NPC
2N5130	CNS
2N5131	CNS
2N5132	CNS
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2N5134	BNT
2N5134	CNS
2N5134	NPC
2N5135	CNS
2N5136	CNS
2N5137	CNS
2N5137	NPC
2N5138	CNS
2N5139	CNS
2N5140	CNS
2N5141	CNS
2N5142	CNS
2N5143	CNS
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2N5152	CNS
2N5153	SOD
2N5154	CNS
2N5155	CNS
2N5157	CNS
2N5172	CNS
2N5172	TEK
2N5174	CNS
2N5175	CNS
2N5201	CNS
2N5202	CNS
2N5214	CNS
2N5216	CNS
2N5231	CNS
2N5232	CNS
2N5232A	CNS
2N5233	CNS
2N5234	CNS
2N5235	CNS
2N5237	CNS
2N5237	SSI
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2N5238	SSI
2N5243	CNS
2N5249	CNS
2N5249A	CNS
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2N5320	CNS
2N5321	CNS
2N5322	CNS
2N5323	CNS
2N5324	CNS
2N5338	CNS
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2N5349	TRW
2N5366	CNS
2N5384	SOD
2N5386	SOD
2N5412	TRW
2N5413	TIIB
2N5414	TIIB
2N5415	MST
2N5416	MST
2N5421	SOD
2N5423	SOD
2N5424	SOD
2N5477	TRW
2N5478	TRW
2N5479	TRW
2N5480	TRW
2N5487-1	TRW
2N5488-1	TRW
2N5519	SOD
2N5537	PPC
2N5538	PPC
2N5541	TRW
2N5542	TRW
2N5560	TRW
2N5658	TRW
3N160	TIIB
3N161	TIIB
AC187/AC188	BELI
BC107	SGSI
BC108	SGSI
BC109	SGSI
BC146	VALG
BC157	MULB
BC157	VALG
BC158	MULB
BC158	VALG
BC159	MULB
BC159	VALG
BC177	TFKG
BC177	TIIB
BC178	TFKG
BC178	TIIB
BC179	TFKG
BC179	TIIB
BC186	MULB
BC200	VALG
BC207A	SGSI
BC207B	SGSI
BC208A	SGSI
BC208B	SGSI
BC208C	SGSI
BC209B	SGSI
BC209C	SGSI
BCW29R	MULB
BCW30R	MULB
BCW31R	MULB
BCW32R	MULB
BCW33R	MULB
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BCY59	VALG
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BCY71	APX
BCY72	APX
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BCY79	VALG
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BD144	VALG
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BF181	VALG
BF182	VALG
BF183	VALG
BF196	MULB
BF197	MULB
BF200	VALG
BFS17R	MULB
BFS28	MULB
BFW57	MINA
BFW58	MINA
BFW59	MINA
BFW60	MINA
BFW96	MULB
BFX29	MINA
BFX37	SGSI
BFX87	MINA
BFX88	MINA
BFY53	MINA
BFY67	MINA
BSW66	VALG
BSW67	VALG
BSW68	VALG
BU105	MULB
DTS413	ITC
DTS701	ITC
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2N603	SSI	14 - 12
2N603A	SSI	14 - 9
2N604	SSI	14 - 13
2N604A	SSI	14 - 10
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2SA532	TSAJ	16 - 40
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2SC694	TSAJ	17 - 2
2SC705	TSAJ	17 - 14
2SC715	TSAJ	17 - 15
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2SC716	TSAJ	17 - 16
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2SC928	TSAJ	17 - 23
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2SC930	TSAJ	17 - 10
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2SC932	TSAJ	25 - 2
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2SC1080	TSAJ	30 - 76
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2SD67	TSAJ	25 - 6
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2SD72	TSAJ	15 - 1
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2SD213	SAKJ	30 - 1
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151-07	WESY	31 - 9
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152-05	WESY	31 - 11
152-07	WESY	31 - 12
152-09	WESY	31 - 13
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153-06	♦WESY	30 - 79
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153-07	WESY	30 - 80
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154-04	♦WESY	30 - 94
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154-05	WESY	30 - 95
154-06	♦WESY	30 - 96
		32 - 19
154-07	WESY	30 - 97
154-08	♦WESY	30 - 98
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154-09	WESY	30 - 99
154-10	♦WESY	30 -100
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154-12	♦WESY	30 -101
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154-14	♦WESY	30 -102
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154-16	♦WESY	30 -103
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154-18	♦WESY	30 -104
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154-20	♦WESY	30 -105
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154-22	♦WESY	30 -106
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154-24	WESY	30 -107
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154-26	WESY	30 -108
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154-28	WESY	30 -109
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154-30	♦WESY	30 -110
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163-05	WESY	31 - 45
163-06	♦WESY	31 - 46
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163-07	WESY	31 - 47
163-08	♦WESY	31 - 48
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163-09	WESY	31 - 49
163-10	♦WESY	31 - 50
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163-18	♦WESY	31 - 54
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163-20	♦WESY	31 - 55
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163-24	WESY	32 - 41
163-26	WESY	32 - 42
163-28	WESY	32 - 43
163-30	♦WESY	31 - 56
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164-04	♦WESY	31 - 57
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164-05	WESY	31 - 58
164-06	♦WESY	31 - 59
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164-07	WESY	31 - 60
164-08	♦WESY	31 - 61
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164-09	WESY	31 - 62
164-10	♦WESY	31 - 63
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164-12	♦WESY	31 - 64
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164-14	♦WESY	31 - 65
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164-18	♦WESY	31 - 67
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164-20	♦WESY	31 - 68
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164-24	WESY	32 - 55
164-26	WESY	32 - 56
164-28	WESY	32 - 57
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1714-0405	♦WESY	30 - 80
		30 - 81
1714-0602	♦WESY	32 - 6
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1714-0605	♦WESY	30 - 83
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1714-0802	♦WESY	30 - 84
		32 - 8
1714-0805	♦WESY	30 - 85
		32 - 9
1714-1002	♦WESY	30 - 86
		32 - 10
1714-1005	♦WESY	30 - 87
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1714-1202	♦WESY	30 - 88
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1714-1205	♦WESY	30 - 89
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1714-1405	♦WESY	30 - 91
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1714-1602	♦WESY	30 - 92
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1714-1605	♦WESY	30 - 93
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1714-1802	♦WESY	30 - 94
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1714-1805	♦WESY	30 - 95
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1716-0405	WESY	30 - 98
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1716-1402	WESY	32 - 28
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1716-1405	WESY	32 - 29
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1716-1602	WESY	32 - 30
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1718-0602	WESY	31 - 50
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1718-0802	WESY	31 - 52
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1718-0805	♦WESY	31 - 53
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1718-1002	♦WESY	31 - 54
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1718-1005	♦WESY	31 - 55
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1718-1405	♦WESY	31 - 57
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1718-1605	♦WESY	32 - 46
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1718-1802	♦WESY	31 - 61
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1743-0630	♦WESY	32 - 50
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1743-0820	♦WESY	32 - 52
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1743-1230	♦WESY	29 - 59
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1743-1620	♦WESY	29 - 64
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1748-1210	♦WESY	30 - 11
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1776-0840	♦WESY	31 - 18
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1776-0860	♦WESY	31 - 19
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1776-1040	♦WESY	31 - 20
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1776-1060	♦WESY	31 - 21
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SDT1159	SOD	28- 5	SDT3752	SOD	24- 4	SDT5510	SOD	25- 74	SDT7609	SOD	28- 87	SDT9904	SOD	26- 29
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2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T MAX	E MAP	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUCTURE	DWG. No.	LEAD CODE
1♦	TIXM104	40m	1.4G§Δ	2.6m		#S	12	10	.30	20m	6.0uØ	9.0Ø	2.0mØ	10 †Δ				1.0p§☑	PLØ	X60	C☑
2♦	TIXM103	40m	1.8G§Δ	2.6m		#S	12	10	.30	20m	6.0uØ	9.0Ø	2.0mØ	10 †Δ				1.0p§☑	PLØ	X60	C☑
3♦	2N779†	60m	320M§Δ	800u		#S	15	15 Ø	2.0	100m	3.0uØ	.50Ø	10mØ	50 †Δ				2.5p☑		TO18	A
4▼#	2SA440A	60m	350M§			#J	20		5.0	5.0m	30u	6.0Ø	2.0mØ	50				1.5p	ME	R146	B
5♦	AF239	60m	770M§	800u		#J	20	15	.30	10m	8.0u	12Ø	1.5mØ	40 †				300ff☑	EMØ	TO72	G
6▼#	AF267	60mØ#	780M§	1.6m		#J	20	15	.30	10m	800n	10Ø	2.0mØ	10 †				500f	PLØ	X87	
7♦	2N487	100m	10M§Δ	1.6m		#S	18		3.0	25m	15uØ	6.0	1.0mØ	10 Δ				14p☑		TO5	A
8♦	2N602A	120m	12M§Δ				35	25	1.5		5.0uØ	1.0Ø	500uΔ	80 †☑	2.0u☑b			7.0p☑	DΔ	TO9	A
9♦	2N603A	120m	12M§Δ				30	20	2.0		5.0uØ	1.0Ø	500uΔ	100 †☑	2.0u☑b			5.0p☑	DΔ	TO9	A
10♦	2N604A	120m	12M§Δ				30	20	2.5		5.0uØ	1.0Ø	500uΔ	120 †☑	2.0u☑b			6.0p☑	DΔ	TO9	A
11♦	2N602	120m	20M§	2.0m		#S	20	20	1.0		8.0uØ	1.0Ø	500uØ	20 †Δ	500nb	33	3.0	4.0p	DΔ	TO9	A
12♦	2N603	120m	40M§	2.0m		#S	30	20	1.0		8.0uØ	1.0Ø	500uØ	30 †Δ	400nb	30	4.0	3.0p	DΔ	TO9	A
13♦	2N604	120m	60M§	2.0m		#S	30	20	2.0		8.0uØ	1.0Ø	500uØ	40 †Δ	250nb	27	3.0	3.0p	DΔ	TO9	A
14♦	2N2048A†	150m	150M§Δ	2.0m		#S	30	20	2.5	3.0u		.50Ø	50mØ	40 †Δ				3.0p☑		TO9	A
15▼#	2SB405	720mØ	700k§			#J	25	25 §	6.0	1.0	50u	1.0Ø	200mØ	100 †					A	TO1	
16♦	2N1123	750mØ	5.0M	10m		#J	45	40 Ø	45	500m	25u	1.0Ø	100mØ	70 †				15p	AΔ	MT60	A
17▼#	2SB492	6.0 Ø	700k§			#J	25	25 §	6.0	2.0	50u	1.5Ø	200mØ	110 †					A	TO39	

3. GERMANIUM NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	[3] TYPE No.	[1] MAX. COLL. DISS. @25°C (W)	[2] fab (Hz)	DERATE IN FREE AIR W/°C	T M A X	E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1▼#	2SD72	720mØ	750k§			#J	25	25 §	6.0	600m	50u	1.0Ø	200mØ	80 †					A	TO1	

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T E M A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC-TURE	DWG. No.	L E A D	C O D E
1▼	A160	50m*	90M§	625u	♦J	20	20	5.0	50m	100n	.50Ø	200u	75	13u	12k	13	5.0p§	PE†	u45		B
2▼	A161	50m*	90M§	625u	♦J	20	20	5.0	50m	100n	.50Ø	200uØ	140	18u	15k	25	5.0p§	PE†	u45		B
3▼	A162	50m*	90M§	625u	♦J	20	20	5.0	50m	100n	.50Ø	200uØ	250	33u	20k	40	5.0p§	PE†	u45		B
4♦	D30A3	90m			#J	18	18	4.0	500m	25n	5.0Ø	10mØ	140 †Δ				6.0 ☑§	PE†	u40		D
5▼#	2SA609	100m	80M§		♦J	30	15	5.0	100m	1.0u	6.0Ø	1.0mØ	80 †				12p	PE	R145		D
6▼#	2SA608†	100m	180M§		♦J						1.0Ø	10mØ	100 †				12p	PE	R145		D
7▼#	BF316	130m	700M§	1.0m	§J	40	35	4.0	15m		10Ø	1.0mØ	50 †				50ft	PL	TO72		
8▼#	BF272	130m	1.0G§	1.0m	§J	40	35	4.0	15m		10Ø	2.5mØ	60 †				100ft	PLØ	TO72		
9▼#	BCW56	150m#	130M§	2.0m	♦J	80	60	6.0	100m	10u	5.0Ø	2.0mØ	125 Δ*				4.5p§	PE	MM13		F
10▼#	BCW57	150m#	130M§	2.0m	♦J	50	45	6.0	100m	10u	5.0Ø	2.0mØ	125 Δ*				4.5p§	PE	MM13		F
11▼#	BCW58	150m#	130M§	2.0m	♦J	30	20	5.0	100m	10u	5.0Ø	2.0mØ	125 Δ*				4.5p§	PE	MM13		F
12▼#	BCW59	150m#	130M§	2.0m	♦J	30	20	5.0	100m	10u	5.0Ø	2.0mØ	125 Δ*				4.5p§	PEØ	MM13		F
13♦	2N4249	200m		2.0m	♦J	60	60	5.0	100m	10nØ	5.0Ø	1.0mØ	100 Δ	40u☑	17k☑	10 ☑	6.0p☑	Ø	R124		A
14♦	2N4250	200m		2.0m	♦J	40	40	5.0	100m	10n	5.0Ø	1.0mØ	250 Δ	50u☑	20k☑	10 ☑	6.0p☑	Ø	R124		A
15▼	MM4049	200m	4.0G§Δ	1.1m	§J	15	10	4.5	30m	10nØ	2.0Ø	25mØ	80 †☑				1.2p☑	AN	TO72		G
16▼#	2SA402	250m	200M§	60	§J	35	30		100m	1.0u	6.0Ø	2.0mØ	200 †				6.0p	PE	TO18		
17▼#	BSY59	280m	100M§	2.2m	§J		30	5.0	500m	100n§	.70Ø	100mØ	60 †Δ				12p	PE†	MM10		A
18▼#	BC307☑	280m	130M§	2.2m	§J	50	45	5.0	100m	100nØ	5.0Ø	2.0mØ	75 Δ*				4.0p§	PE†	u69		F
19▼#	BC308☑	280m	130M§	2.2m	§J	30	25	5.0	100m	100nØ	5.0Ø	2.0mØ	75 Δ*				4.0p§	PE†	u69		F
20▼#	BC309☑	280m	130M§	2.2m	§J	25	20	5.0	100m	100nØ	5.0Ø	2.0mØ	125 Δ*				4.0p§	PE†Ø	u69		F
21▼#	BC307Δ	300m	130M§	2.2m	§J		45	5.0	100m	100n§	5.0	2.0mØ	222 *	25u	2.7k	3.0	6.0p☑	PE	X64a		C
22▼#	BC308Δ	300m	130M§	2.2m	§J		25	5.0	100m	100n§	5.0	2.0mØ	222 *	25u	2.7k	3.0	6.0p☑	PE	X64a		C
23▼#	BC309Δ	300m	130M§	2.2m	§J		20	5.0	50m	100n§	5.0	2.0mØ	222 *	25u	2.7k	3.0	6.0p☑	PEØ	X64a		C
24▼#	BC187	300m	191M§	2.0m	§J	30	25	5.0	100m	100nØ	5.0Ø	2.0mØ	140	29u	2.0k	1.4	4.5p†	PE	TO18		AØ
25▼#	V721†	300m	480M§		§						1.0Ø	10mØ	50 †				3.0p	PE	TO18		A
26▼#	BC291A	360m		6.8m	§J	45	45	6.0	200m	10n	5.0Ø	1.0mØ	100 †Δ				5.0p	PEØ	TO18		A
27▼#	BC291D	360m		6.8m	§J	45	45	6.0	200m	10n	5.0Ø	1.0mØ	50 †Δ				5.0p	PEØ	TO18		A
28▼#	BC292A	360m		6.8m	§J	45	45	6.0	200m	10u	5.0Ø	1.0mØ	200 †				5.0p	PEØ	TO18		A
29▼#	BC292B	360m		6.8m	§J	45	45	6.0	200m	10u	5.0Ø	1.0mØ	400 †				5.0p	PEØ	TO18		A
30▼	LDS257	360m		2.9m	§J	20	15	10	30m	10n§	.50Ø	1.0mØ	60 †Δ				10p☑	PEΔ	TO122		P
31▼#	BC326	360m	12M§Δ	2.0m	§J	60	60	6.0	50m	10nØ	5.0Ø	1.0mØ	150 Δ	40u☑	24k☑	8.0 ☑	9.0p☑	PLØ	TO18		AØ
32▼#	BC325	360m	15M§Δ	2.0m	§J	60	60	6.0	50m	10nØ	5.0Ø	1.0mØ	80 Δ	30u☑	13k☑	8.0 ☑	9.0p☑	PLØ	TO18		AØ
33▼#	V741	360m	60M§	6.8m	§J	30	30	5.0		50u	5.0Ø	5.0uØ	180 †	22u	6.6	3.8	5.0p	PLØ	TO18		A
34▼#	V723†	360m	450M§		§						1.0Ø	10mØ	130 †				3.0p	PE	TO18		A
35▼#	V743	360m	450M§	6.8m	§J	20	20	5.0		50u	5.0Ø	10mØ	130 †	28u	1.1k	1.2	3.0p	PEØ	TO18		A
36▼	MQ2904*	400m	200M§Δ	2.2m	§J	60	40	5.0	600m	20n#	10Ø	150mØ	40 †#Δ				8.0p☑	ANΔ	L56		
37▼	MQ2905A*	400m	200M§Δ	2.2m	§J	60	60	5.0	600m	20n#	10Ø	150mØ	100 †#Δ				8.0p☑	ANΔ	L56		
38▼#	V763†	400m	300M§		§						1.0Ø	50mØ	100 †				6.0p	PL	TO18		A
39♦	MD2904*	500m	200m§Δ	2.9m	§J	60	40	5.0	600m	20n#	10Ø	150mØ	40 †#Δ				8.0p☑	ANΔ	L17k		
40▼#	2SA532	500m	90M§		§J	50	50	4.0	200m	10u	6.0Ø	50mØ	80 †					PL	TO39		
41♦	D29E4	500m	100M§Δ	4.5m	†J	50	40	5.0	750m	100n§	2.0Ø	2.0mØ	60 †Δ				15p§☑	PE†	TO98		B
42♦	D29E5	500m	120M§Δ	4.5m	†J	50	40	5.0	750m	100n§	2.0Ø	2.0mØ	100 †Δ				15p§☑	PE†	TO98		B
43♦	MD2904A*	500m	200M§Δ	2.9m	§J	60	60	5.0	600m	20n#	10Ø	150mØ	40 †#Δ				8.0p☑	ANΔ	L17k		
44♦	MD2905*	500m	200M§Δ	2.9m	§J	60	40	5.0	600m	20n#	10Ø	150mØ	100 †#Δ				8.0p☑	ANΔ	L17k		
45♦	MD2905A*	500m	200M§Δ	2.9m	§J	60	60	5.0	600m	20n#	10Ø	150mØ	100 †#Δ				8.0p☑	ANΔ	L17k		
46▼#	BCY67	770m*	180M§	4.9m	§J		45	5.0	50m	20n§	5.0Ø	2.0mØ	330	30u	4.5k	2.0	4.5p	PEØ	R81m		AØ
47▼#	BC116A	800m	200M§	8.0m	♦J	45	40	5.0		50n	10Ø	10mØ	70 †Δ				6.0p	PE	TO105		A
48▼#	BC287	800m	200M§	4.5m	§J	60	60	5.0	1.0	500nØ	2.0Ø	500mØ	20 †Δ				13p	DPE	TO5		
49▼#	V745	800m	240M§	8.0m	§J	50	40	5.0		100u	10Ø	50mØ	95 †				15p	PE	TO39		A

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T E M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CODE
1▼#	2SC693	100m	180M§		♦J	40		5.0	50m	1.0u	6.0Ø	1.0mØ	240 †				3.0p	PL	R145	D
2▼#	2SC694	100m	180M§		♦J	40		5.0	50m	1.0u	6.0Ø	1.0mØ	240 †				3.0p	PL	R145	D
3▼#	2SC858	100m	180M§		♦J	20		5.0	50m	1.0u	6.0Ø	1.0mØ	240 †				3.0p	PL	R145	D
4▼#	2SC859	100m	180M§		♦J	20		5.0	50m	1.0u	6.0Ø	1.0mØ	240 †				3.0p	PL	R145	D
5▼#	BC194†	100m*	250M§Δ	1.2m	♦J	40	25	5.0	800m	100nØ	10Ø	1.0mØ	25 †Δ				8.0p$	PE	u30b	D
6▼#	BFS18R	110m	200M§	2.0m	♦J	30	20	5.0	30m	100nØ	10Ø	1.0mØ	35 †Δ				850ft	PEØ	u56	C
7▼#	BFS19R	110m	260M§	2.0m	♦J	30	20	5.0	30m	100nØ	10Ø	1.0mØ	65 †Δ				850ft	PEØ	u56	C
8▼#	BFS20R	110m	450M§	2.0m	♦J	30	20	4.0	25m	100nØ	10Ø	7.0mØ	40 †Δ				350ft	PE	u56	C
9▼#	2SC929	120m	300M§		♦J	15	10	5.0	30m	1.0u	6.0Ø	1.0mØ	100 †				1.6p	PE	R145	D
10▼#	2SC930	120m	300M§		♦J	15	10	5.0	30m	1.0u	6.0Ø	1.0mØ	80 †				1.6p	PE	R145	D
11▼#	2SC772†	120m	350M§		♦J	15		5.0	30m	1.0u	6.0Ø	1.0mØ	45 †				1.5p	PE	R145	D
12▼#	2SC668	120m	550M§		♦J	15		3.0	30m	1.0u	6.0Ø	1.0mØ	60 †				1.1p	PL	R145	D
13▼#	2SC674	120m	750M§		♦J	15		3.0	30m	1.0u	6.0Ø	1.0mØ	80 †				1.1p	PL	R145	D
14▼#	2SC705	120m	800M§		♦J	15		3.0	30m	1.0u	6.0Ø	1.0mØ	80 †				1.1p	PE	R145	D
15▼#	2SC715†	125m	200M§		♦J	40		5.0	100m	1.0u	6.0Ø	1.0mØ	80 †				3.0p	PE	R145	D
16▼#	2SC716†	125m	200M§		♦J	20		5.0	100m	1.0u	6.0Ø	1.0mØ	80 †				3.0p	PE	R145	D
17♦	A480	130m	675M§	1.0m	§J	30	20	3.0	20m	100nØ	10	2.0m	13 Δ†				900f	PLØ	TO72	G
18▼#	BCW46	150m#	300M§	2.0m	♦J	80	60	6.0	100m	10u	5.0Ø	2.0mØ	240 Δ*	30u	4.5k	2.0	2.5p$	PE	MM13	F
19▼#	BCW47	150m#	300M§	2.0m	♦J	50	45	6.0	100m	10u	5.0Ø	2.0mØ	240 Δ*	30u	4.5k	2.0	2.5p$	PE	MM13	F
20▼#	BCW48	150m#	300M§	2.0m	♦J	30	20	5.0	100m	10u	5.0Ø	2.0mØ	240 Δ*	30u	4.5k	2.0	2.5p$	PE	MM13	F
21▼#	BCW49	150m#	300M§	2.0m	♦J	30	20	5.0	100m	10u	5.0Ø	2.0mØ	240 Δ*	30u	4.5k	2.0	2.5p$	PEØ	MM13	F
22▼#	2SC927	150m	500M§		♦J	30	15	3.0	20m	1.0u	6.0Ø	1.0mØ	80 †				1.0p	PL	TO104	
23▼#	2SC928	150m	500M§		♦J	30	15	3.0	20m	1.0u	6.0Ø	1.0mØ	80 †				1.0p	PL	TO104	
24▼#	2SC1035	150m	500M§		§J	30	15	3.0	20m	1.0u	6.0Ø	1.0mØ	70 †				1.0p	PL	TO104	
25▼#	2SC1036	150m	500M§		§J	30	15	3.0	20m	1.0u	6.0Ø	1.0mØ	70 †				1.0p	PL	TO104	
26▼#	BF270	150m	600M§	1.0m	§J	40	40	4.0	20m		10Ø	4.0mØ	50 †					PL	TO72	J
27▼#	BF273	150m	750M§	1.4m	♦J	40	35	4.0	50m		7.0Ø	10mØ	80 †				400ft	PE	TO106	C
28▼#	BF274	150m	750M§	1.4m	♦J	40	35	4.0	50m		7.0Ø	10mØ	40 †				400ft	PE	TO106	C
29▼	BF255☑	160m*	220M§	2.0m	♦J	30	20	5.0	30m								1.0pt	PEØ	X73	C
30▼	BF254☑	160m*	280M§	2.0m	♦J	30	20	5.0	30m								1.0pt	PEØ	X73	C
31▼#	BSW13†	160m	280M§Δ	2.0m	♦J	20	15	5.0	50m	500nØ	.35Ø	10mØ	40 †Δ				5.0pØ	PE	u32	
32▼#	2SC536	200m	230M§		♦J	40		5.0	100m	1.0u	6.0Ø	1.0mØ	120 †				3.0p	PLΔ	R145	D
33▼#	2SC537	200m	230M§		♦J	20		5.0	100m	1.0u	6.0Ø	1.0mØ	120 †				3.0p	PLΔ	R145	D
34♦	CS3605†	200m	300M§Δ	1.6m	§J	18	14	5.0	200m	500n	1.0Ø	10mØ	30 †Δ				6.0pØ	DPL	R97	A
35♦	CS3606†	200m	300M§Δ	1.6m	§J	18	14	5.0	200m	500n	1.0Ø	10mØ	30 †Δ				6.0pØ	DPL	R97	A
36♦	CS3607†	200m	300M§Δ	1.6m	§J	18	14	5.0	200m	500n	1.0Ø	10mØ	30 †Δ				6.0pØ	DPL	R97	A
37▼#	2SC933†	200m	500M§		♦J	50	30	5.0	300m	1.0u	5.0Ø	20mØ	100 †					PE	TO104	
38▼#	2SC934†	200m	500M§		♦J	20	15	5.0	300m	1.0u	5.0Ø	20mØ	100 †					PE	TO104	
39♦	D16G6	200m	500M§Δ	2.6m	♦J	30	12	3.0	25m	500n	10Ø	5.0mØ	20 †Δ				1.2p	PE	TO98	B
40♦	JAN2N2708	200m	700M§Δ	1.1m	§J	35	20 *	3.0	50m	10nØ	15Ø	2.0mØ	30 Δ				1.0p$☑	Ø	TO72	GØ
41▼#	2SC860	200m	800M§		♦J	15		3.0	30m	1.0u	6.0Ø	1.0mØ	80 †				1.1p	PE	TO104	
42♦	K2109	200m	1.0G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
43♦	K2110	200m	1.0G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
44♦	K2111	200m	1.0G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
45♦	K2112	200m	1.0G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
46♦	K2113	200m	1.0G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
47♦	K2114	200m	1.0G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
48♦	K2115	200m	1.0G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
49♦	K2116	200m	1.0G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
50♦	K2117	200m	1.0G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
51♦	K2118	200m	1.0G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
52♦	K2119	200m	1.0G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
53♦	K2120	200m	1.0G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
54♦	K2121	200m	1.0G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
55♦	K2122	200m	1.0G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
56♦	K2123	200m	1.0G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
57♦	K2124	200m	1.0G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
58♦	K2125	200m	1.0G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
59♦	K2126	200m	1.0G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
60♦	K2127	200m	1.0G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
61♦	K2615	200m	1.0G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.5pØ☑		TO72	G
62♦	K2616	200m	1.0G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.5pØ☑		TO72	G
63♦	K2109A	200m	1.4G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
64♦	K2110A	200m	1.4G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
65♦	K2111A	200m	1.4G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
66♦	K2112A	200m	1.4G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
67♦	K2113A	200m	1.4G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
68♦	K2114A	200m	1.4G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
69♦	K2115A	200m	1.4G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
70♦	K2116A	200m	1.4G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
71♦	K2117A	200m	1.4G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
72♦	K2118A	200m	1.4G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
73♦	K2119A	200m	1.4G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
74♦	K2120A	200m	1.4G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
75♦	K2121A	200m	1.4G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
76♦	K2122A	200m	1.4G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
77♦	K2123A	200m	1.4G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
78♦	K2124A	200m	1.4G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
79♦	K2125A	200m	1.4G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
80♦	K2126A	200m	1.4G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
81♦	K2127A	200m	1.4G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
82♦	K2615A	200m	1.4G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.5pØ☑		TO72	G
83♦	K2616A	200m	1.4G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.5pØ☑		TO72	G
84♦	K2109B	200m	1.7G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
85♦	K2110B	200m	1.7G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
86♦	K2111B	200m	1.7G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
87♦	K2112B	200m	1.7G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
88♦	K2113B	200m	1.7G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
89♦	K2114B	200m	1.7G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
90♦	K2115B	200m	1.7G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
91♦	K2116B	200m	1.7G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
92♦	K2117B	200m	1.7G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
93♦	K2118B	200m	1.7G§	1.1m	§J	30	15	2.5		10nØ	1.0Ø	3.0mØ	30 Δ				1.0pØ☑	Ø	TO72	G
94♦	K2119B	200m	1.7G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
95♦	K2120B	200m	1.7G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
96♦	K2121B	200m	1.7G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
97♦	K2122B	200m	1.7G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
98♦	K2123B	200m	1.7G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
99♦	K2124B	200m	1.7G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
100♦	K2125B	200m	1.7G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
101♦	K2126B	200m	1.7G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
102♦	K2127B	200m	1.7G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.0pØ☑	Ø	TO72	G
103♦	K2615B	200m	1.7G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.5pØ☑		TO72	G
104♦	K2616B	200m	1.7G§	1.1m	§J	30	12	2.0		300nØ	1.0Ø	3.0mØ	20 Δ				1.5pØ☑		TO72	G
105▼#	BF255Δ	220m	200M§	2.2m	♦J	30	20	5.0	30m		10Ø	1.0mØ	67 †				850ft	PEtØ	X64b	C
106▼	BC237☑	220m	250M§	2.2m	♦J	45	45	5.0	100m	700pØ	5.0Ø	2.0mØ	125 Δ*					PEt	X73	A
107▼	BC238☑	220m	250M§	2.2m	♦J	20	20	5.0	100m	1.0n	5.0Ø	2.0mØ	125 Δ*					PEt	X73	A
108▼#	BF254Δ	220m	260M§	2.2m	♦J	30	20	5.0	30m		10Ø	1.0mØ	115 †				850ft	PEtØ	X64b	C
109▼	BC147Δ	220m	300M§	2.2m	♦J		45	6.0	100m	20n§Ø	5.0Ø	2.0mØ	330	30u	4.5k	2.0		EØ	MM10	A
110▼#	BC147☑	220m	300M§	2.2m	♦J	50	45	6.0	100m	5.0uØ†	5.0Ø	2.0mØ	210 *	18u	3.0k	1.0	2.4p$	PE	MM11	A

SYMBOLS AND CODES
EXPLAINED IN INTERPRETER

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CODE
1▼	BC148△	220m	300M§	2.2m	♦J		20	5.0	100m	20n§Ø	5.0Ø	2.0mØ	330	30u	4.5k	2.0		EØ	MM10	A
2▼#	BC148☑	220m	300M§	2.2m	♦J	30	20	5.0	100m	5.0uØ†	5.0Ø	2.0mØ	210 *	18u	3.0k	1.0	2.4p§	PE	MM11	A
3▼	BC149△	220m	300M§	2.2m	♦J		20	5.0	100m	20n§Ø	5.0Ø	2.0mØ	330	30u	4.5k	2.0		EØ	MM10	A
4▼#	BC149☑	220m	300M§	2.2m	♦J	30	20	5.0	100m	5.0uØ†	5.0Ø	2.0mØ	210 *	18u	3.0k	1.0	2.4p§	PEØ	MM11	A
5▼	BC239☑	220m	300M§	2.2m	♦J	20	20	5.0	100m	1.0n	5.0Ø	2.0mØ	240 △*					PE†	X73	A
6▼	MMT3014†	225m	350M§△	2.0m	†J	40	20	5.0	200m	100nØ	.4Ø	30mØ	50 †△#				5.0pØ	AN△	u43	D
7▼#	BSV51	250m	50M§△	2.0m	§J	100	80 *	7.0	200m#	100nØ	2.0Ø	15mØ	30 †△					PE†	MM11	A
8♦	MD2218AF*	250m	200M§△	1.5m	§J	75	40	6.0	600m	15n#	10Ø	150mØ	40 †#△				8.0pØ☑	AN△	L17d	
9♦	MD2218F*	250m	200M§△	1.5m	§J	60	30	5.0	600m	20n#	10Ø	150mØ	40 †#△				8.0pØ☑	AN△	L17d	
10♦	MD2219AF*	250m	250M§△	1.5m	§J	75	40	6.0	600m	15n#	10Ø	150mØ	100 †#△				8.0pØ☑	AN△	L17d	
11♦	MD2219F*	250m	250M§△	1.5m	§J	60	30	5.0	600m	20n#	10Ø	150mØ	100 †#△				8.0pØ☑	AN△	L17d	
12▼#	BF335	250m	370M§	2.5m	♦J	40	30	4.0	25m	10u	10Ø	1.0mØ	35 †△	67ub	1.3mb		300f	PEØ	MM10	C
13▼#	BF334	250m	430M§	2.5m	♦J	40	30	4.0	25m	10u	10Ø	1.0mØ	65 †△	2.8ub	60ub		300f	PEØ	MM10	C
14▼	TIS108	250m	650M§	2.0m	§S	40	30	4.0	50m	50nØ	10Ø	4.0mØ	25 †△					PL1Ø	X55	C
15♦	2N5761	250m	3.7G§△	2.0m	§S	20	15	3.0	30m	500nØ	10Ø	10mØ	30 †△				500f§☑		X80a	S
16▼#	BFS62	260m*	580M§△	1.5m	§J	40	25	4.0	25m	100nØ	2.0Ø	20 Ø	15 †△				280ft☑	PEØ	TO72	J
17♦	MPSA10	300m	50M§△	2.7m	†J		40	4.0	100m	100n	10Ø	5.0mØ	40 †△*				4.0pØ☑	AN	TO92	A
18▼	2N3587*	300m	80M§△	1.7m	§S	60	45	5.0	500m	10nØ	15Ø	1.0mØ	80 †△				8.0pØ☑	*	L21	
19♦#	ZTX310†	300m	200M§△	3.0m	♦A	25	20 §	3.0	500m#	200nØ	1.0Ø	10mØ	20 †△				6.0pØ☑	PL	X59	F
20♦#	ZTX311†	300m	200M§△	3.0m	♦A	20	15	5.0	500m#	200nØ	.35Ø	1.0mØ	30 †△				6.0pØ☑	PL	X59	F
21♦#	BC222	300m	250M§	3.0m	♦J	30	30	5.0	500m	50n	7.0Ø	200uØ	20 †△	105m	425	1.2	11p	DPE	TO105	
22▼#	BC237△	300m	250M§	2.2m	§J		45	6.0	100m	200p§	5.0Ø	2.0 Ø	330 *	30u	4.5k	2.0	4.5pØ☑	PE	X64a	C
23▼#	BC238△	300m	250M§	2.2m	§J		20	5.0	100m	200p§	5.0Ø	2.0 Ø	330 *	30u	4.5k	2.0	4.5pØ☑	PE	X64a	C
24♦	2N1708A†	300m	300M§△	1.7m	§J	40	15	5.0	500m	25nØ	1.0Ø	10mØ	30 †△				6.0pØ☑		TO46	AØ
25▼#	BC239△	300m	300M§	2.2m	§J		20	5.0	50m	200p§	5.0Ø	2.0 Ø	330 *	30u	4.5k	2.0	4.5pØ☑	PEØ	X64a	C
26♦	K2101	300m	1.0G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
27♦	K2102	300m	1.0G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
28♦	K2103	300m	1.0G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
29♦	K2104	300m	1.0G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
30♦	K2105	300m	1.0G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
31♦	K2106	300m	1.0G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
32♦	K2107	300m	1.0G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
33♦	K2108	300m	1.0G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				1.0pØ☑	Ø	TO50	C
34♦	K2601	300m	1.0G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				1.5pØ☑		TO50	C
35♦	K2602	300m	1.0G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				1.5pØ☑		TO50	C
36♦	K2603	300m	1.0G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				1.5pØ☑		TO50	C
37♦	K2604	300m	1.0G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				1.5pØ☑		TO50	C
38♦	K2610	300m	1.0G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO18	AØ
39♦	K2611	300m	1.0G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO18	AØ
40♦	K2612	300m	1.0G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO18	AØ
41♦	K2613	300m	1.0G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO18	AØ
42♦	K2614	300m	1.0G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO18	AØ
43▼#	BFX53	300m	1.3G§△	2.5m	§J	20	12	2.5	25m	10nØ	1.0Ø	25mØ	15 †△				900ft☑	PE†Ø	u68	C
44♦	K2101A	300m	1.4G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
45♦	K2102A	300m	1.4G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
46♦	K2103A	300m	1.4G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
47♦	K2104A	300m	1.4G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
48♦	K2105A	300m	1.4G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
49♦	K2106A	300m	1.4G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
50♦	K2107A	300m	1.4G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
51♦	K2108A	300m	1.4G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				1.0pØ☑	Ø	TO50	C
52♦	K2601A	300m	1.4G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				1.5pØ☑		TO50	C
53♦	K2602A	300m	1.4G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				1.5pØ☑		TO50	C
54♦	K2603A	300m	1.4G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				1.5pØ☑		TO50	C
55♦	K2604A	300m	1.4G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				1.5pØ☑		TO50	C
56♦	K2610A	300m	1.4G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO18	AØ
57♦	K2611A	300m	1.4G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO18	AØ
58♦	K2612A	300m	1.4G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO18	AØ
59♦	K2613A	300m	1.4G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO18	AØ
60♦	K2614A	300m	1.4G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO18	AØ
61♦	K2101B	300m	1.7G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
62♦	K2102B	300m	1.7G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
63♦	K2103B	300m	1.7G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
64♦	K2104B	300m	1.7G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
65♦	K2105B	300m	1.7G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
66♦	K2106B	300m	1.7G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
67♦	K2107B	300m	1.7G§	1.7m	§J	30	10	2.5		10nØ	1.0Ø	3.0mØ	30 △				1.0pØ☑	Ø	TO50	C
68♦	K2108B	300m	1.7G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				1.0pØ☑	Ø	TO50	C
69♦	K2601B	300m	1.7G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				1.5pØ☑		TO50	C
70♦	K2602B	300m	1.7G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				1.5pØ☑		TO50	C
71♦	K2603B	300m	1.7G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				1.5pØ☑		TO50	C
72♦	K2604B	300m	1.7G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				1.5pØ☑		TO50	C
73♦	K2610B	300m	1.7G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO18	AØ
74♦	K2611B	300m	1.7G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO18	AØ
75♦	K2612B	300m	1.7G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO18	AØ
76♦	K2613B	300m	1.7G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO18	AØ
77♦	K2614B	300m	1.7G§	1.7m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO18	AØ
78♦	2N5762	300m	3.3G§△	2.4m	§S	20	15	3.0	40m	500nØ	10Ø	15mØ	30 †△				800f§☑	Ø	X80a	S
79▼#	BC289A	360m		2.0m	§J	45	40	6.0	100m	5.0uΔ	5.0Ø	1.0mØ	200 †	9.5u	5.6k	2.1	2.8p	PLØ	TO18	A
80▼#	BC289B	360m		2.0m	§J	45	40	6.0	100m	5.0uΔ	5.0Ø	1.0mØ	350 †	16u	9.0k	3.5	2.8p	PLØ	TO18	A
81▼#	BC290B	360m		2.0m	§J	45	40	6.0	100m	5.0uΔ	5.0Ø	1.0mØ	350 †	16u	9.0k	3.5	2.8p	PLØ	TO18	A
82▼#	BC290C	360m		2.0m	§J	45	40	6.0	100m	5.0uΔ	5.0Ø	1.0mØ	550 †	22u	15k	5.3	2.8p	PLØ	TO18	A
83♦	GET929	360m	90M§△	3.6m	♦J	70	50	5.0	100m	10n	5.0Ø	10uØ	60 †△				4.0pØ☑	PE†Ø	X93	A
84♦	GET930	360m	90M§△	3.6m	♦J	70	50	5.0	100m	10n	5.0Ø	10uØ	100 †△				4.0pØ☑	PE†Ø	X93	A
85▼	2N5735†	360m	200M§△	2.9m	§S	60	30	5.0	300m	10nØ	10Ø	10mØ	30 †△#				8.0pØ☑		TO122	P
86▼	2N5736†	360m	200M§△	2.9m	§S	60	30	5.0	300m	10nØ	10Ø	10mØ	70 †△#				8.0pØ☑		TO122	P
87♦	TIS97	360m	200M§△	2.8m	§S	60	40	6.0	200m	10uØ	5.0Ø	100uØ	440	11u	115k	30	4.0pØ☑	PE†Ø	X55	A
88♦	TIS98	360m	200M§△	2.8m	§S	80	60	6.0	200m	10uØ	5.0Ø	1.0mØ	240	6.0u	6.4k	1.5	4.0pØ☑	PE†Ø	X55	A
89♦	TIS99	360m	200M§△	2.8m	§S	80	65	6.0	200m	10uØ	5.0Ø	10mØ	130	50u	500	900m	4.0pØ☑	PE†Ø	X55	A
90▼#	C722†	360m	350M§		§						1.0Ø	10mØ	120 †				3.0p	PE	TO18	A
91▼#	C742	360m	350M§	6.8m	§J	30	30	5.0		200p	5.0Ø	10mØ	200 †	30u	1.0k	1.2	2.6p	PL	TO18	A
92▼#	BF293A	360m	380M§	2.0m	§J	50	45	5.0	100m	10u	10Ø	10mØ	170 †				2.7p	PL	TO18	A
93▼#	BF293D	360m	380M§	2.0m	§J	50	45	5.0	100m	10u	10Ø	10mØ	100 †				2.7p	PL	TO18	A
94▼#	C720†	360m	420M§		§						1.0Ø	10mØ	60 †				4.5p	PE	TO18	A
95▼#	C740	360m	450M§	6.8m	§J	30	30	5.0		200n	5.0Ø	1.0mØ	260 †	20u	8.5	3.2	3.0p	PL	TO18	A
96▼	2N929/46	400m	30M§△	3.0m	§J	45	45	5.0	30m	10n	5.0Ø	1.0 Ø	60 △	1.0 ☑b	32 ☑	6.0 ☑	8.0p	PLØ	TO46	
97▼#	C441	400m	60M§	2.3m	§J	45	45	5.0		500n	5.0Ø	1.0mØ	290 †				8.0p	PL	TO18	A
98▼	MQ2218*	400m	200M§△	2.2m	§J	60	30	5.0	600m	20n#	10Ø	150mØ	40 †#△				8.0pØ☑	AN△	L56	
99▼	MQ2219A*	400m	250M§△	2.2m	§J	75	40	6.0	600m	15n#	10Ø	150mØ	100 †#△				8.0pØ☑	AN△	L56	
100▼	TIS105	400m	300M§△	3.2m	§	45	45	4.0	50m	50nØ	15Ø	10mØ	30 †△				1.0 §☑	PEØ	X55	C
101▼#	C762	400m	350M§		§J	25	40 Ø	5.0		200u§	10Ø	50mØ	110 †	400u	350	5.0	5.0p	PL	TO18	A
102▼	2N834/46†	400m	450M§	2.5m	§J	40	30	5.0	200m	500nØ	1.0Ø	10 Ø	40 †				2.8p	ME	TO46	
103♦	2N835/46†	400m	450M§	2.5m	§J	25	20	3.0	200m	500nØ	1.0Ø	10 Ø	40 †				2.8p	ME	TO46	
104♦	K2607	400m	1.0G§	2.3m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO46	A
105♦	K2608	400m	1.0G§	2.3m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO46	A
106♦	K2609	400m	1.0G§	2.3m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO46	A
107♦	K2607A	400m	1.4G§	2.3m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO46	A
108♦	K2608A	400m	1.4G§	2.3m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO46	A
109♦	K2609A	400m	1.4G§	2.3m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO46	A
110♦	K2607B	400m	1.7G§	2.3m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 △				2.0pØ☑		TO46	A

SYMBOLS AND CODES
EXPLAINED IN INTERPRETER

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION (2) fab & (3) TYPE No.

LINE No.	3 TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T A M E X M P	ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS BIAS Vcb (V)	BIAS Ie (A)	BIAS hfe	COMMON EMITTER hoe (mhos)	COMMON EMITTER hie (Ω)	COMMON EMITTER hre X.0001	Cob (F)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1♦	K2608B	400m	1.7G§	2.3m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 Δ				2.0pØ		TO46	A
2♦	K2609B	400m	1.7G§	2.3m	§J	20	10	2.0		100nØ	1.0Ø	3.0mØ	20 Δ				2.0pØ		TO46	A
3♦	A214	450m	1.2G§	18m	§J	40	25	3.0	150m	10uØ	5.0	50m	25 Δ†				2.8p	PE	TO46	A
4♦	2N1893/46	500m	80MΔ	4.5m	§J	120	80	7.0	500m	10nØ	10Ø	150mØ	80 †#	11u	2.8k	3.5	15pØ	PLΔ	TO46	
5▼#	C760	500m	90M§		§J	30	30	5.0		50n	10Ø	10mØ	140 †	50u	550	900m	14p	PL	TO18	A
6♦	2N1613/46	500m	130M	4.5m	§J	75	50 §	7.0	500m	10nØ	10Ø	150mØ	80 †#	12u	2.2k	3.6	25pØ	PL†Δ	TO46	
7♦	2N1711/46	500m	160M	4.5m	§J	75	50 §	7.0	500m	10nØ	10Ø	150mØ	130 †	23u	4.4k	7.3	25pØ	PLØΔ	TO46	
8▼#	2SC875	500m	170M§		§J	75	75	4.0	500m	1.0u	6.0Ø	50mØ	100 †				5.0p	PL	TO39	
9▼#	2SC876	500m	170M§		§J	50	50	4.0	500m	1.0u	6.0Ø	50mØ	100 †				5.0p	PL	TO39	
10♦	MD2218*	500m	200M§Δ	2.9m	§J	60	30	5.0	600m	20n#	10Ø	150mØ	40 †#Δ				8.0pØ	ANΔ	L17k	
11♦	MD2218A*	500m	200M§Δ	2.9m	§J	75	40	6.0	600m	15n#	10Ø	150mØ	40 †#Δ				8.0pØ	ANΔ	L17k	
12♦	MD2219*	500m	250M§Δ	2.9m	§J	60	30	5.0	600m	20n#	10Ø	150mØ	100 †#Δ				8.0pØ	ANΔ	L17k	
13♦	MD2219A*	500m	250M§Δ	2.9m	§J	75	40	6.0	600m	15n#	10Ø	150mØ	100 †#Δ				8.0pØ	ANΔ	L17k	
14▼#	2SC423†	500m	500M§		§J	40		5.0	300m	1.0u	5.0Ø	20mØ	80 †				5.0p	PE	TO39	
15▼#	2SC425†	500m	500M§		§J	20		5.0	300m	1.0u	5.0Ø	20mØ	80 †				5.0p	PE	TO39	
16♦	A777	600mØ	120M§	4.5m	§J	100	60	5.0	50m	4.0m*							1.8p†	PL	TO5	AØ
17▼	A778	600mØ	120M§	4.5m	§J	160	115	5.0	50m	4.0m*							1.8p†	PL	TO5	AØ
18▼	A779	600mØ	120M§	4.5m	§J	250	115	5.0	50m	4.0m*							1.8p†	PL	TO5	AØ
19▼#	BSW65†	700m*	80M§	4.5m	§J	80	80	6.0	1.0	100u	5.0	1.0	15 †Δ				35p$Ø	PE	TO5	AØ
20▼#	BC140-6*	750m	50M§Δ	5.0m	§J	80	40	7.0	1.0	100n§	1.0Ø	1.0	15 †				25pØ	PEΔ	TO39	AØ
21▼#	BC140-10*	750m	50M§Δ	5.0m	§J	80	40	7.0	1.0	100n§	1.0Ø	1.0	20 †				25pØ	PEΔ	TO39	AØ
22▼#	BC140-16*	750m	50M§Δ	5.0m	§J	80	40	7.0	1.0	100n§	1.0Ø	1.0	30 †				25pØ	PEΔ	TO39	AØ
23▼#	BC141-6*	750m	50M§Δ	5.0m	§J	100	60	7.0	1.0	100n§	1.0Ø	1.0	15 †				25pØ	PEΔ	TO39	AØ
24▼#	BC141-10*	750m	50M§Δ	5.0m	§J	100	60	7.0	1.0	100n§	1.0Ø	1.0	20 †				25pØ	PEΔ	TO39	AØ
25▼#	BC141-16*	750m	50M§Δ	5.0m	§J	100	60	7.0	1.0	100n§	1.0Ø	1.0	30 †				25pØ	PEΔ	TO39	AØ
26▼#	C744	800m		8.0m	§J	60	60 §	5.0		100u	10Ø	50mØ	175 †				14p	PE	TO39	A
27▼#	BC293	800m	80M§	4.5m	§J	80	60	6.0	5.0	10u§	2.0Ø	2.0 Ø	120 †				45p	PE	TO39	A
28▼#	BF294	800m	80M§	4.5m	§J	160	160	6.0	100m	100u	50Ø	10mØ	70 †				2.5p	PL	TO39	A
29▼#	C764	800m	88M§	8.0m	§J	120	120	5.0		100u	10Ø	25mØ	70 †				6.0p	PL	TO39	A
30▼#	2SC108A	800m	90M§	187	§J	90	55	5.0	800m	1.0uØ	2.0Ø	200mØ	80 †				20p	PE	TO39	A
31▼#	2SC109A	800m	90M§	156	§J	50	40	5.0	800m	1.0uØ	2.0Ø	200mØ	80 †				20p	PE	TO39	A
32♦	2N2218A†	800m	250M§Δ	5.3m	§J	75	40	6.0	800m	10nØ	10Ø	1.0mØ	30 Δ	15uØ	3.5kØ	5.0 Ø	8.0pØ	Ø	TO5	AØ
33▼#	2SC385A	800m	1.0G§	500	♦J	30	15	3.0	50m	500nØ	3.0Ø	8.0mØ	40 †				1.0p	PE	R67a	B
34▼#	2SC387A	800m	1.0G§	500	♦J	30	15	3.0	50m	500nØ	3.0Ø	8.0mØ	40 †				1.0p	PE	R67a	B
35▼#	BSV64†	875m	100M§	5.0m	§J	100	60	5.0	2.0	10uØ	2.0Ø	2.0 Ø	40 †Δ				80p$Ø	PE	TO39	AØ
36▼#	2SC614	7.5 Ø	200M§		§J	80		4.0	1.5	1.0u	10Ø	250mØ	80 †				12p	PE	TO39	
37▼#	2SC615	7.5 Ø	200M§		§J	30		4.0	1.5	1.0u	10Ø	250mØ	80 †				12p	PE	TO39	

6. SILICON FIELD EFFECT TRANSISTORS - P CHANNEL

IN ORDER OF (1) DISSIPATION (2) TYPE No.

LINE No.	[2] TYPE No.	[1] MAX. DEVICE DISS @25°C (W)	MAX. Vp @ Id=0 (V)	MAX. Vp & Vds (V)	ABS MAX RATINGS@25°C BVdss (V)	BVgss (V)	Id (A)	Ig (A)	MAX. Id(ON)@ Vgs=0& Vds>Vp (A)	MAX. Igss@ Vgs>Vp &Vds=0 (A)	PARAMETERS @25°C TEST COND Vgs (V)	Vds (V)	COMMON SOURCE gfs (mhos) MIN	gfs (mhos) MAX	Yos mhos	Rds (Ω)	MAX. Cis (F)	DERATE IN FREE AIR W/°C	MAX TEMP (°C)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1♦	3N167†	225m	6.0Δ	10*	30	30Δ	50m	100u	500p							20 †	35p#	2.2m	150S	*	TO72	DM
2♦	3N168†	225m	6.0Δ	10*	25	25Δ	50m	100u	1.0n							40 †	35p#	2.2m	150S	*	TO72	DM
3♦	M113	225m	3.0Δ	*	30	30	50m	100u		100p						200 †	300f☑	2.2m	125J	*	TO72	DM
4♦	3N174†	360m	6.0Δ	15*	30	30	20m		12m	2.5p	15	15	400u		200u%	1.0k	4.0p	2.4m	200S	Ø*	TO72	DM
5♦	M106	500m	6.0Δ	*	30	30	50m	100u	10m	100p	10	10	2.0n			120 †	500f☑	6.7m	125J	*§	L51b	
6♦	M107	500m	6.0Δ	*	30	30	50m	100u	10m	100p	10	10	2.0n			120 †	500f☑	6.7m	125J	*§	L70	
7♦	M108	500m	8.0Δ	*	30	30	50m	100u	10m	1.0p	10	10	2.0n			120 †	500f☑	6.7m	125J	*§	L70a	

7. SILICON FIELD EFFECT TRANSISTORS - N CHANNEL

IN ORDER OF (1) DISSIPATION (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. DEVICE DISS @25°C (W)	MAX. Vp @ Id=0 (V)	MAX. Vp & Vds (V)	ABS MAX RATINGS@25°C BVdss (V)	BVgss (V)	Id (A)	Ig (A)	Id(ON)@ Vgs=0& Vds>Vp (A)	MAX. Igss@ Vgs>Vp &Vds=0 (A)	PARAMETERS @25°C TEST COND Vgs (V)	TEST COND Vds (V)	COMMON SOURCE gfs (mhos) MIN	COMMON SOURCE gfs (mhos) MAX	COMMON SOURCE Yos mhos	Rds (Ω)	MAX. Cis (F)	DERATE IN FREE AIR W/°C	MAX TEMP (°C)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1▼#	C97E	200m	3.0	10	50Δ	50Δ		50m	11m	50p	0.0	10	3.0m	9.0m			6.0p#	1.6m	150S	§	T092	DA
2▼#	C98E	200m	4.0	10	50Δ	50Δ		50m	13m	50p	0.0	10	3.5m	8.5m			6.0p#	1.6m	150S	§	T092	DA
3▼	NF501	200m	8.0†	15	15	15Δ		1.0m	30 %	50n	0.0	10	4.5 Δ	†		180 †	3.0 #*	2.0m	125J	#	T072	DH
4♦	M116	225m	5.0Δ	*	30	30	50m	100u		100p						100 †	7.0pØ	2.2m	125J	*	T072	DM
5▼	M117	225m	5.0Δ	*	30	30	50m	100u		1.0p						100 †	7.0pØ	2.2m	125J	*	T072	DR
6♦	2N3921▼	250m	3.0†		10	50	50	10m	250p	1.0n	0.0	10	1.5	7.5	35u		18p	1.7m	200S	Ø	L21	
7♦	2N3922▼	250m	3.0†	10	50	50	10m	250p		1.0n	0.0	10	1.5	7.5	35u		18p	1.7m	200S	Ø	L21	
8♦	2N3934▼	250m	3.0†	10	50	50	1.3m	100p		400p	0.0	10	300u	900u	10u		7.0p	1.7m	200S	Ø	L21	
9♦	2N3935▼	250m	3.0†	10	50	50	1.3m	100p		400p	0.0	10	300u	900u	10u		7.0p	1.7m	200S	Ø	L21	
10♦	U257▼	250m	5.0	10		25		50m	40mΔ	100p		10	5.0n	10n			5.0p#	3.8m	125J	#	T078	
11▼	NF500	300m	8.0†	15	25	25Δ		1.0m	30 %	10n	0.0	15	4.5 Δ	†		180 †	2.5 #*	2.4m	150J	Ø#	T072	DH
12♦	TIS88	360m	6.0†	15	30	30		50m	15mΔ%	1.0n	0.0	15	4.5m	7.5m	50 %		4.5p#	2.8m	150S	PE#Ø	X55	DD
13▼	CMX740†	400m	10	5.0		30	1.0	100m	500mΔ%	10n						2.5 %		2.3m	200J	E	T046	DDØ
14▼	NF511	400m	10†	10	20	20Δ		10m	50m%	100n	0.0	10	20 Δ			50 †	15 #*	4.0m	125J		T018	DB
15▼	NF510	500m	10†	20	30	30Δ		10m	50m%	10n	0.0	10	20 Δ			50 †	15 #*	4.0m	150J		T018	DB

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MAX TEMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1♦	TI3027	1.2 $	2.0	#C	7.0	3.0	45	20	40	1.0mØ	2.0Ø	3.0	40	250 #				A	TO3	CØ
2♦	TI3028	1.2 $	2.0	#C	7.0	3.0	60	20	50	1.0mØ	2.0Ø	3.0	40	250 #				A	TO3	CØ
3♦	TI3029	1.2 $	2.0	#C	7.0	3.0	80	20	55	1.0mØ	2.0Ø	3.0	40	250 #				A	TO3	CØ
4♦	TI3030	1.2 $	2.0	#C	7.0	3.0	100	20	60	1.0mØ	2.0Ø	3.0	40	250 #				A	TO3	CØ
5♦	TI3031	1.2 $	2.0	#C	7.0	3.0	120	20	65	1.0mØ	2.0Ø	3.0	40	250 #				A	TO3	CØ
6▼	MP5692†	1.4	120	♦J	40	12	50	2.5	30	200uØ	2.0Ø	25	20	65 #	200k§Δ		20u☑		TO41	CØ
7▼	MP5693†	1.4	120	♦J	40	12	80	2.5	60	200uØ	2.0Ø	25	20	65 #	200k§Δ		20u☑		TO41	CØ
8▼	MP5694†	1.4	120	♦J	40	12	100	2.5	80	200uØ	2.0Ø	25	20	65 #	200k§Δ		20u☑		TO41	CØ
9▼	MP5695†	1.4	120	♦J	40	12	120	2.5	100	200uØ	2.0Ø	25	20	65 #	200k§Δ		20u☑		TO41	CØ
10▼	MP5696†	1.4	120	♦J	40	12	140	2.5	120	200uØ	2.0Ø	25	20	65 #	200k§Δ		20u☑		TO41	CØ
11▼#	2SB410	1.5	40 Ø	#J	15		135	5.0	135 §	250u	1.5Ø	1.0	60 Ø		3.0M§			DΔ	TO3	
12▼#	2SB411	1.5	40 Ø	#J	11		200	5.0	200 §	250u	1.5Ø	1.0	60 Ø		2.5M§			DΔ	TO3	
13▼#	2SB407	2.0	30 Ø	#J	7.0		30	10	30 §	500u	1.5Ø	1.0	80 Ø		350k§			A	TO3	
14▼#	2SB474	5.0	12 Ø	#J	2.0		35	6.0	35 §	200u	1.5Ø	200m	100 Ø		700k†			A	TO3	

10. SILICON PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AEMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1▼#	BC160†	28m	3.2	§J	1.0	100m	40	5.0	40	100n§	1.0Ø	100m	40	250 *	50M§Δ	1.0	500nØ	E	TO39	AØ
2▼#	BC161†	28m	3.2	§J	1.0	100m	60	5.0	60	100n§	1.0Ø	100m	40	250 *	50M§Δ	1.0	500nØ	E	TO39	AØ
3▼#	BSV15†	28m	3.2 ØØ	§J	1.0	200m		5.0	40	100n§	1.0Ø	100m	40	250 *	50M§Δ	2.0	500nØ	PE	TO39	AØ
4▼#	BSV16†	28m	3.2 ØØ	§J	1.0	200m		5.0	60	100n§	1.0Ø	100m	40	250 *	50M§Δ	2.0	500nØ	PE	TO39	AØ
5▼	SDT3501	40m	7.0		2.0	1.0	40	6.0	40	100n	5.0	500m	30		50M			PL	TO5	
6▼	SDT3502	40m	7.0		2.0	1.0	60	6.0	60	100n	5.0	500m	30		50M			PL	TO5	
7▼	SDT3503	40m	7.0		2.0	1.0	80	6.0	80	100n	5.0	500m	30		50M			PL	TO5	
8▼	SDT3504	40m	7.0		2.0	1.0	100	6.0	100	100n	5.0	500m	30		50M			PL	TO5	
9▼	SDT3505	40m	7.0		2.0	1.0	40	6.0	40	100n	5.0	500m	50	150	50M			PL	TO5	
10▼	SDT3506	40m	7.0		2.0	1.0	60	6.0	60	100n	5.0	500m	50	150	50M			PL	TO5	
11▼	SDT3507	40m	7.0		2.0	1.0	80	6.0	80	100n	5.0	500m	50	150	50M			PL	TO5	
12▼	SDT3508	40m	7.0		2.0	1.0	100	6.0	100	100n	5.0	500m	50	150	50M			PL	TO5	
13▼	SDT3550	40m	7.0		2.0	1.0	60	6.0	60	1.0m	1.0	250m	30	100	10M				TO5	
14▼	SDT3551	40m	7.0		2.0	1.0	80	6.0	80	1.0m	1.0	250m	30	100	10M				TO5	
15▼	SDT3552	40m	7.0		2.0	1.0	40	5.0	40	100u	1.0	500m	20	100	10M				TO5	
16▼	SDT3553	40m	7.0		2.0	1.0	60	5.0	60	100u	1.0	500m	20	100	10M				TO5	
17▼	SDT3554	40m	7.0		2.0	1.0	80	5.0	80	100u	1.0	500m	20	100	10M				TO5	
18▼	SDT3775	40m	7.0		5.0	2.0	40	6.0	40	75u	2.0	2.0	20	60	10M				TO5	
19▼	SDT3776	40m	7.0		5.0	2.0	60	6.0	60	75u	2.0	2.0	20	60	10M				TO5	
20▼	SDT3777	40m	7.0		5.0	2.0	80	6.0	80	75u	2.0	2.0	20	60	10M				TO5	
21▼	SDT3778	40m	7.0		5.0	2.0	40	6.0	40	75u	2.0	2.0	40		10M				TO5	
22▼	2N5781	57m	10 Ø	§J	3.5	1.0	80	5.0	80	1.0m#	2.0Ø	1.0	20	100	8.0M§Δ	625m			TO5	P
23▼	2N5782	57m	10 Ø	§J	3.5	1.0	65	5.0	65	1.0m#	2.0Ø	1.2	20	100	8.0M§Δ	625m			TO5	P
24▼	2N5783	57m	10 Ø	§J	3.5	1.0	45	3.5	45	1.0m#	2.0Ø	1.6	20	100	8.0M§Δ	625m			TO5	P
25♦	MJ8100†	57m	10 Ø	§J	5.0	1.0	60	5.0	60	10u	2.0Ø	2.0	25	180 #	30M§Δ		100nØ		TO39	A
26▼	D41D1†	72m	1.2	§S	1.0			5.0	30	100n§	2.0Ø	100m	50	150	150M§	1.0	50nØ	†	X51	A
27▼	D41D2†	72m	1.2	§S	1.0			5.0	30	100n§	2.0Ø	100m	120	300	150M§	1.0	50nØ	†	X51	A
28▼	D41D4†	72m	1.2	§S	1.0			5.0	45	100n§	2.0Ø	100m	50	150	150M§	1.0	50nØ	†	X51	A
29▼	D41D5†	72m	1.2	§S	1.0			5.0	45	100n§	2.0Ø	100m	120	360	150M§	1.0	50nØ	†	X51	A
30▼	D41D7†	72m	1.2	§S	1.0			5.0	60	100n§	2.0Ø	100m	50	150	150M§	2.0	50nØ	†	X51	A
31▼	D41D8†	72m	1.2	§S	1.0			5.0	60	100n§	2.0Ø	100m	120	360	150M§	2.0	50nØ	†	X51	A
32▼#	BD136Δ	100m	6.5 ØØ	♦J	500m	100m	45	5.0	45	100nØ	1.0Ø	150m	40	250	50M§Δ	1.2		PE	X58	BØ
33▼#	BD136Ø	100m	6.5 ØØ	♦J	500m		45	5.0	45	100nØ	2.0Ø	150m	40	250	75M§	1.0		PE	X100	BØ
34▼#	BD138Δ	100m	6.5 ØØ	♦J	500m	100m	60	5.0	60	100nØ	1.0Ø	150m	40	160	50M§Δ	1.2		PE	X58	BØ
35▼#	BD138Ø	100m	6.5 ØØ	♦J	500m		60	5.0	60	100nØ	2.0Ø	150m	40	160	75M§	1.0		PE	X100	BØ
36▼#	BD140	100m	6.5 ØØ	♦J	500m			5.0	80	100n	2.0Ø	150m	40	160	75M§	1.0		PE	X100	BØ
37▼	D43C1†	100m	2.1	§J	3.0			5.0	30	10u§	1.0Ø	200m	25		40M§	500m	50nØ	†	X51	A
38▼	D43C2†	100m	2.1	§J	3.0			5.0	30	10u§	1.0Ø	200m	40	120	40M§	500m	50nØ	†	X51	A
39▼	D43C3†	100m	2.1	§J	3.0			5.0	30	10u§	1.0Ø	200m	40	120	40M§	500m	50nØ	†	X51	A
40▼	D43C4†	100m	2.1	§J	3.0			5.0	45	10u§	1.0Ø	200m	25		40M§	500m	50nØ	†	X51	A
41▼	D43C5†	100m	2.1	§J	3.0			5.0	45	10u§	1.0Ø	200m	40	120	40M§	500m	50nØ	†	X51	A
42▼	D43C7†	100m	2.1	§J	3.0			5.0	60	10u§	1.0Ø	200m	25		40M§	500m	50nØ	†	X51	A
43▼	D43C8†	100m	2.1	§J	3.0			5.0	60	10u§	1.0Ø	200m	40	120	40M§	500m	50nØ	†	X51	A
44▼	SDT3575	100m	17		2.0	1.0	40	6.0	40	100u	1.0	250m	30	150	10M				TO66	
45▼	SDT3576	100m	17		2.0	1.0	60	6.0	60	100u	1.0	250m	30	150	10M				TO66	
46▼	SDT3577	100m	17		2.0	1.0	80	6.0	80	100u	1.0	250m	30	150	10M				TO66	
47▼	SDT3578	100m	17		2.0	1.0	40	5.0	30	100n	10	500m	25	100	40M			PL	TO66	
48▼	SDT3579	100m	17		2.0	1.0	60	5.0	50	100n	10	500m	25	100	40M			PL	TO66	
49▼#	BDY70	150m	1.0	§J	2.0	1.0	100	4.0	80	50uΔ	4.0Ø	1.0	30	200	30M§			PE	TO5	
50▼	SDT3701	160m	28		5.0	1.0	40	6.0	40	1.0m	1.5	1.0	25	180	60M			PL	TO66	
51▼	SDT3702	160m	28		5.0	1.0	60	6.0	60	1.0m	1.5	1.0	25	180	60M			PL	TO66	
52▼	SDT3703	160m	28		5.0	1.0	40	5.0	40	100u	2.0	1.0	20	80	10M				TO66	
53▼	SDT3704	160m	28		5.0	1.0	60	5.0	60	100u	2.0	1.0	20	80	10M				TO66	
54▼	SDT3705	160m	28		5.0	1.0	80	5.0	80	100u	2.0	1.0	20	80	10M				TO66	
55▼	SDT3706	160m	28		5.0	1.0	30	4.0	30	200u	2.0	1.0	20	60	60M			PL	TO66	
56▼	SDT3707	160m	28		5.0	1.0	45	4.0	45	200u	2.0	1.0	20	60	60M			PL	TO66	
57▼	SDT3708	160m	28		5.0	1.0	60	4.0	60	200u	2.0	1.0	20	60	60M			PL	TO66	
58▼	SDT3709	160m	28		5.0	1.0	30	4.0	30	200u	2.0	1.0	50	180	60M			PL	TO66	
59▼	SDT3710	160m	28		5.0	1.0	45	4.0	45	200u	2.0	1.0	50	180	60M			PL	TO66	
60▼	SDT3711	160m	28		5.0	1.0	60	4.0	60	200u	2.0	1.0	50	180	60M			PL	TO66	
61▼	SDT3712	160m	28		5.0	1.0	40	6.0	40	75u	2.0	2.0	20	60	10M				TO66	
62▼	SDT3713	160m	28		5.0	1.0	60	6.0	60	75u	2.0	2.0	20	60	10M				TO66	
63▼	SDT3714	160m	28		5.0	1.0	80	6.0	80	75u	2.0	2.0	20	60	10M				TO66	
64▼	SDT3715	160m	28		5.0	1.0	40	6.0	40	75u	2.0	2.0	20	60	10M				TO66	
65▼	SDT3716	160m	28		5.0	1.0	40	6.0	40	1.0m	3.0	1.0	12	36	10M				TO66	
66▼	SDT3717	160m	28		5.0	1.0	60	6.0	60	1.0m	3.0	1.0	12	36	10M				TO66	
67▼	SDT3718	160m	28		5.0	1.0	80	6.0	80	1.0m	3.0	1.0	12	36	10M				TO66	
68▼	SDT3719	160m	28		5.0	1.0	100	6.0	100	1.0m	3.0	1.0	12	36	10M				TO66	
69▼	SDT3720	160m	28		5.0	1.0	40	6.0	40	1.0m	3.0	1.0	40	36	10M				TO66	
70▼	SDT3721	160m	28		5.0	1.0	40	6.0	40	1.0m	3.0	2.0	10	30	10M				TO66	
71▼	SDT3722	160m	28		5.0	1.0	60	6.0	60	1.0m	3.0	2.0	10	30	10M				TO66	
72▼	SDT3723	160m	28		5.0	1.0	80	6.0	80	1.0m	3.0	2.0	10	30	10M				TO66	
73▼	SDT3724	160m	28		5.0	1.0	100	6.0	100	1.0m	3.0	2.0	10	30	10M				TO66	
74▼	SDT3725	160m	28		5.0	1.0	40	6.0	40	1.0m	3.0	2.0	40		10M				TO66	
75▼	SDT3726	160m	28		5.0	1.0	40	5.0	40	100u	2.0	2.5	25	100	10M				TO66	
76▼	SDT3727	160m	28		5.0	1.0	60	5.0	60	100u	2.0	2.5	25	100	10M				TO66	
77▼	SDT3728	160m	28		5.0	1.0	80	5.0	80	100u	2.0	2.5	25	100	10M				TO66	
78▼	SDT3729	160m	28		5.0	1.0	40	6.0	40	1.0m	3.0	3.0	10	30	10M				TO66	
79▼	SDT3730	160m	28		5.0	1.0	60	6.0	60	1.0m	3.0	3.0	10	30	10M				TO66	
80▼	SDT3731	160m	28		5.0	1.0	80	6.0	80	1.0m	3.0	3.0	10	30	10M				TO66	
81▼	SDT3732	160m	28		5.0	1.0	100	6.0	100	1.0m	3.0	3.0	10	30	10M				TO66	
82▼	SDT3733	160m	28		5.0	1.0	40	6.0	40	1.0m	3.0	3.0	40		10M				TO66	
83▼	SDT3509	166m	30		2.0	1.0	40	6.0	40	100n	5.0	500m	30		50M			PL	TO66	
84▼	SDT3510	166m	30		2.0	1.0	60	6.0	60	100n	5.0	500m	30		50M			PL	TO66	
85▼	SDT3511	166m	30		2.0	1.0	80	6.0	80	100n	5.0	500m	30		50M			PL	TO66	
86▼	SDT3512	166m	30		2.0	1.0	100	6.0	100	100n	5.0	500m	30		50M			PL	TO66	
87▼	SDT3513	166m	30		2.0	1.0	40	6.0	40	100n	5.0	500m	50	150	50M			PL	TO66	
88▼	SDT3514	166m	30		2.0	1.0	60	6.0	60	100n	5.0	500m	50	150	50M			PL	TO66	
89▼	SDT3515	166m	30		2.0	1.0	80	6.0	80	100n	5.0	500m	50	150	50M			PL	TO66	
90▼	SDT3516	166m	30		2.0	1.0	100	6.0	100	100n	5.0	500m	50	150	50M			PL	TO66	
91▼	2N5739	200m	35		10	2.0	60	5.0	60	10u	5.0	5.0	20	80	10M		200n		TO66	
92▼	2N5740	200m	35		10	2.0	100	5.0	100	10u	5.0	5.0	20	80	10M		200n		TO66	
93▼	SDT3801	200m	35		10	4.0	60	6.0	60	1.0m	2.0	1.0	25	90	10M				TO66	
94▼	SDT3802	200m	35		10	4.0	80	6.0	80	1.0m	2.0	1.0	25	90	10M				TO66	
95▼	SDT3803	200m	35		10	4.0	60	6.0	60	1.0m	2.0	1.0	50	180	10M				TO66	
96▼	SDT3804	200m	35		10	4.0	80	6.0	80	1.0m	2.0	1.0	50	180	10M				TO66	
97▼	SDT3805	200m	35		10	2.0	40	5.0	40	100u	5.0	5.0	20	80	10M				TO66	
98▼	SDT3806	200m	35		10	2.0	80	5.0	80	100u	5.0	5.0	20	80	10M				TO66	
99▼	SDT3807	200m	35		10	2.0	40	5.0	40	100u	5.0	5.0	40		10M				TO66	
100▼	SDT3850	243m	42		20	4.0	40	5.0	40	100u	5.0	10	20	80	10M				TO66	
101▼	SDT3851	243m	42		20	4.0	80	5.0	80	100u	5.0	10	20	80	10M				TO66	
102▼	SDT3852	243m	42		20	4.0	40	5.0	40	100u	5.0	10	40		10M				TO66	
103▼	2N5743	250m	43		20	4.0	60	5.0	60	10u	5.0	10	20	80	10M		200n		TO66	
104▼	2N5744	250m	43		20	4.0	100	5.0	100	10u	5.0	10	20	80	10M		200n		TO66	
105▼#	BDY67	300m	2.0	§J	5.0	1.0	100	4.0	80	50uΔ	4.0Ø	2.0	20	80	30M§			PE	TO111	G
106▼#	BDY68	300m	2.0	§J	5.0	1.0	100	4.0	80	50uΔ	4.0Ø	2.0	20	80	30M§			PE	TO111	A
107▼	SDT3125	300m	52		10	2.0	40	6.0	40	10u	5.0	5.0	20	80	40M			PL	TO111	G
108▼	SDT3126	300m	52		10	2.0	60	6.0	60	10u	5.0	5.0	20	80	40M			PL	TO111	G
109▼	SDT3127	300m	52		10	2.0	80	6.0	80	10u	5.0	5.0	20	80	40M			PL	TO111	G
110▼	SDT3128	300m	52		10	2.0	100	6.0	100	10u	5.0	5.0	20	80	40M			PL	TO111	G

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

10. SILICON PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M A X	T E M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O D E
1▼	SDT3129	300m	52			10	2.0	120	6.0	120	10u	5.0	5.0	20	80	40M			PL	TO111	G	
2▼	SDT3750	300m	52			5.0	1.0	40	6.0	40	1.0m	1.5	1.0	25	180	60M			PL	TO3		
3▼	SDT3751	300m	52			5.0	1.0	60	6.0	60	1.0m	1.5	1.0	25	180	60M			PL	TO3		
4▼	SDT3752	300m	52			5.0	1.0	40	6.0	40	1.0m	3.0	1.0	12	36	10M				TO3		
5▼	SDT3753	300m	52			5.0	1.0	60	6.0	60	1.0m	3.0	1.0	12	36	10M				TO3		
6▼	SDT3754	300m	52			5.0	1.0	80	6.0	80	1.0m	3.0	1.0	12	36	10M				TO3		
7▼	SDT3755	300m	52			5.0	1.0	100	6.0	100	1.0m	3.0	1.0	12	36	10M				TO3		
8▼	SDT3756	300m	52			5.0	1.0	40	6.0	40	1.0m	3.0	1.0	40		10M				TO3		
9▼	SDT3757	300m	52			5.0	2.0	40	6.0	40	1.0m	3.0	2.0	10	30	10M				TO3		
10▼	SDT3758	300m	52			5.0	2.0	60	6.0	60	1.0m	3.0	2.0	10	30	10M				TO3		
11▼	SDT3759	300m	52			5.0	2.0	80	6.0	80	1.0m	3.0	2.0	10	30	10M				TO3		
12▼	SDT3760	300m	52			5.0	2.0	100	6.0	100	1.0m	3.0	2.0	10	30	10M				TO3		
13▼	SDT3761	300m	52			5.0	2.0	40	6.0	40	1.0m	3.0	2.0	40		10M				TO3		
14▼	SDT3762	300m	52			5.0	2.0	40	6.0	40	1.0m	3.0	3.0	10	30	10M				TO3		
15▼	SDT3763	300m	52			5.0	2.0	60	6.0	60	1.0m	3.0	3.0	10	30	10M				TO3		
16▼	SDT3764	300m	52			5.0	2.0	80	6.0	80	1.0m	3.0	3.0	10	30	10M				TO3		
17▼	SDT3765	300m	52			5.0	2.0	100	6.0	100	1.0m	3.0	3.0	10	30	10M				TO3		
18▼	SDT3766	300m	52			5.0	2.0	40	6.0	40	1.0m	3.0	3.0	40		10M				TO3		
19▼	SDT3825	454m	78			10	2.0	40	5.0	40	100u	5.0	5.0	20	80	10M				TO3		
20▼	SDT3826	454m	78			10	2.0	80	5.0	80	100u	5.0	5.0	20	80	10M				TO3		
21▼	SDT3827	454m	78			10	2.0	40	5.0	40	100u	5.0	5.0	40		10M				TO3		
22▼	2N5737	500m	87			10	2.0	60	5.0	60	10u	5.0	5.0	20	80	10M		200n		TO3	CØ	
23▼	2N5738	500m	87			10	2.0	100	5.0	100	10u	5.0	5.0	20	80	10M		200n		TO3	CØ	
24▼#	BDY69	500m	3.5	§J		12	4.0	100	4.0	80	50uΔ	4.0Ø	6.0	20	80	30M§			PE	TO61	A	
25▼	SDT3875	552m	96			20	4.0	40	5.0	40	100u	5.0	10	20	80	10M				TO3		
26▼	SDT3876	552m	96			20	4.0	80	5.0	80	100u	5.0	10	20	80	10M				TO3		
27▼	SDT3877	552m	96			20	4.0	40	5.0	40	100u	5.0	10	40		10M				TO3		
28▼	2N5741	666m	113			20	4.0	60	5.0	60	10u	5.0	10	20	80	10M		200n		TO3	CØ	
29▼	2N5742	666m	113			20	4.0	100	5.0	100	10u	5.0	10	20	80	10M		200n		TO3	CØ	
30▼	SDT3601	1.0	175			60	10	40	5.0	40	10u	10	40	10	40	25M			PL			
31▼	SDT3602	1.0	175			60	10	60	5.0	60	10u	10	40	10	40	25M			PL			
32▼	SDT3603	1.0	175			60	10	80	5.0	80	10u	10	40	10	40	25M			PL			
33▼	SDT3604	1.0	175			60	10	100	5.0	100	10u	10	40	10	40	25M			PL			
34▼	SDT3901	1.2	220			60	10	40	5.0	40	10u	10	40	10	40	25M				TO114		
35▼	SDT3902	1.2	220			60	10	60	5.0	60	10u	10	40	10	40	25M				TO114		
36▼	SDT3903	1.2	220			60	10	80	5.0	80	10u	10	40	10	40	25M				TO114		
37▼	SDT3904	1.2	220			60	10	80	5.0	80	10u	10	40	10	40	25M				TO114		
38▼	RS1875	50	3.5 Ø	§S		400m		55	4.0	55 §	10n	5.0	1.0m	20		1.2G§	3.0			TO39	AØ	
39▼	STP30P	75 Ø	2.0	§A		500m	100m	300	5.0	300	3.0m	10Ø	20m	20	250	20M§Δ	200	300m		MD14		
40▼	STP40P	75 Ø	2.0	§A		500m	100m	400	5.0	400	3.0m	10Ø	20m	20	250	20M§Δ	200	300m		MD14		
41▼	STP50P	75 Ø	2.0	§A		500m	100m	500	5.0	500	4.0m	10Ø	20m	20	250	20M§Δ	200	300m		MD14		
42▼	STP60P	75 Ø	2.0	§A		500m	100m	600	5.0	600	4.0m	10Ø	20m	20	250	20M§Δ	200	300m		MD14		
43▼	STP70P	75 Ø	2.0	§A		300m	50m	700	5.0	700	5.0m	10Ø	20m	20	250	20M§Δ	200	350m		MD14		
44▼	STP20S	150 Ø	1.0	§A		400m	50m	200	5.0	200	3.0m	10Ø	20m	20	250	20M§Δ	200	200m		TO5		
45▼	STP30S	150 Ø	1.0	§A		400m	50m	300	5.0	300	3.0m	10Ø	20m	20	250	20M§Δ	200	200m		TO5		
46▼	STP40S	150 Ø	1.0	§A		400m	50m	400	5.0	400	3.0m	10Ø	20m	20	250	20M§Δ	200	200m		TO5		
47▼	STP50S	150 Ø	1.0	§A		400m	50m	500	5.0	500	4.0m	10Ø	20m	20	250	20M§Δ	200	250m		TO5		
48▼	STP60S	150 Ø	1.0	§A		400m	50m	600	5.0	600	4.0m	10Ø	20m	20	250	20M§Δ	200	250m		TO5		
49▼	STP70S	150 Ø	1.0	§A		200m	30m	700	5.0	700	5.0m	10Ø	20m	20	250	20M§Δ	200	250m		TO5		

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M A X	T E M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	LEAD CODE
1▼	#2SC931		10 Ø		♦J	3.0		50	4.0	50	50u	2.0Ø	1.0	70 Ø		120M§			ME	X101	F
2▼	#2SC932		10 Ø		♦J	3.0		30	4.0	20	50u	2.0Ø	1.0	70 Ø		120M§			ME	X101	F
3▼	#2SC1024		25 Ø		§J	3.0		60	4.0	50	1.0m	2.0Ø	1.0	70 Ø					ME	T066	
4▼	#2SC1025		25 Ø		§J	3.0		120	4.0	80	1.0m	4.0Ø	200m	80 Ø					ME	T066	
5▼	#2SD24		6.0 Ø§		§J	100m		300	2.0	300 §	1.5u	10Ø	50m	60 Ø		25M§			ME	T066	
6▼	#2SD67		50 Ø		§J	5.0		120	5.0	120 §	5.0m	5.0Ø	1.0	50 Ø		100M§			MEΔ	T03	
7▼	#2SD68		50 Ø		§J	5.0		75	5.0	75 §	5.0m	5.0Ø	1.0	50 Ø		100M§			ME	T03	
8▼	PP3006	1.0m	115 Ø			15		80		60		4.0Ø	5.0	20					DM	T03	CØ
9▼	PP3007	1.0m	115 Ø			15		100		80		4.0Ø	5.0	20					DM	T03	CØ
10▼	PP3008	1.0m	115 Ø			15		120		100		4.0Ø	5.0	20					DM	T03	CØ
11▼	#BUY26†	1.6m	100 Ø*		#J	10	5.0	200	15	150	15m*	3.0Ø	2.0 Ø	13	17 Ø	10k§	93m	20u	A	MT76	AØ
12▼	#BUY27†	1.6m	100 Ø*		#J	10	5.0	360	25	250	15m*	3.0Ø	2.0 Ø	13	17 Ø	10k§	93m	20u	A	MT76	AØ
13▼	#BUY28†	1.6m	100 Ø*		#J	10	5.0	420	25	300	15m*	3.0Ø	2.0 Ø	13	17 Ø	10k§	93m	20u	A	MT76	AØ
14▼	A249	6.6mØ	2.5		§J	250m		65	4.0	36		5.0Ø	250m	50 Ø		1.3G§	12m▼		PL	u57	R
15▼	A298	6.6mØ	2.5		§J	250m		36	4.0	18		6.0Ø	50m	35 Ø		1.0G§	12m▼		PL	u57	R
16▼	#BSY34†	16m	2.6		§J	600m	200m	60	5.0	40	70nØ	1.0Ø	100m	25	42 Ø	400M§	2.0	30nØ	DPE	T039	AØ
17▼	#BSY58†	16m	2.6		§J	600m	200m	50	5.0	25	120n	1.0Ø	100m	17	42 Ø	400M§	3.0	35nØ	DPE	T039	AØ
18▼	SD1100	20m	3.5 Ø		§J	400m		40	3.0	20	20uΔ	15	75m	20	210	4.8G§Δ	5.0		Ø	T039	A
19▼	PT6669	23mØ	4.0 Ø		§S	200m		55	3.5	30											
20▼	#BFS50	25m	3.0 Ø§		§J	400m		40	3.5	20	20uΔ	5.0	120m	10 #		600M§Δ			PE	T039	AØ
21♦	2N2270	28m	1.0		§J	1.0		60	7.0	45	50n♦	10Ø	150m	50	200 #	100M§Δ			Δ	T05	AØ
22♦	2N4926	28m	5.0 Ø		§S	50m		200	7.0	200	100nØ	10Ø	30m	20	200 #	30M§Δ				T039	AØ
23♦	2N4927	28m	5.0 Ø		§S	50m		250	7.0	250	100nØ	10Ø	30m	20	200 #	30M§Δ				T039	AØ
24▼	2N5766	28mØ	5.0 Ø		§J	200m		55	3.5	30										MT74	Z
25♦	A209	28m	5.0 Ø		§J	500m#		40	·	25	10uØ	15Ø	50m	25	200	1.4G§			PE	MT71	R
26▼	SD1043	28m	5.0 Ø		§J	500m		40	3.0	30	1.0mΔ	15Ø	50m	20	200	4.8G§Δ	5.0		PEØ	MT59j	R
27▼	SD1101	28m	5.0 Ø		§J	500m		40	3.0	20	20uΔ	15	75m	20	210	4.8G§Δ	5.0		Ø	T060	A
28▼	SD1102	28m	5.0 Ø		§J	500m		40	3.0	20	20uΔ	15	75m	20	210	4.8G§Δ	5.0		Ø	MT59j	R
29▼	SD1103	28m	5.0 Ø		§J	500m		40	3.0	20	20uΔ	15	75m	20	210	4.8G§Δ	5.0		Ø	MT66	R
30▼	SD1180	28m	5.0 Ø		§J	400m		55	3.5	30	20uΔ					1.2G§			PE	T039	A
31▼	PT6618	34mØ	6.0 Ø		§S	400m		55	3.5	30											
32▼	#BFS51	40m	5.0 Ø§		§J	750m		40	4.0	20	100uΔ	15	500m	15 #		450M§Δ			PE	T039	AØ
33▼	SD1181	40m	5.0 Ø§		§J	500m		55	3.5	30	20uΔ					1.2G§			PE	T060	A
34▼	SD1182	40m	5.0 Ø§		§J	500m		55	3.5	30	20uΔ					1.2G§			PE	MT59j	R
35▼	SD1183	40m	5.0 Ø§		§J	500m		55	3.5	30	20uΔ					1.2G§			PE	MT66	R
36▼	SDT4455	40m§	4.0 Ø		§J	5.0		80	8.0	40	1.0uØ	5.0Ø	1.0	100 #		20M§Δ			PL	T05	AØ
37▼	SDT4456	40m§	4.0 Ø		§J	5.0		100	8.0	80	1.0uØ	5.0Ø	1.0	100 #		20M§Δ			PL	T05	AØ
38▼	SDT4483	40m§	4.0 Ø		§J	5.0		60	5.0	40	1.0uØ	5.0Ø	1.0	20	60 #	20M§Δ			PL	T05	AØ
39▼	SDT4921	40m	7.0			5.0	1.0	225	8.0	200	1.0u	5.0	1.0	20	60	30M			PL	T05	
40▼	SDT4922	40m	7.0			5.0	1.0	250	8.0	225	1.0u	5.0	1.0	20	60	30M			PL	T05	
41▼	SDT4923	40m	7.0			5.0	1.0	275	8.0	250	1.0u	5.0	1.0	20	60	30M			PL	T05	
42▼	SDT4924	40m	7.0			5.0	1.0	300	8.0	275	1.0u	5.0	1.0	20	60	30M			PL	T05	
43▼	SDT4925	40m	7.0			5.0	1.0	325	8.0	300	1.0u	5.0	1.0	20	60	30M			PL	T05	
44▼	SDT5001	40m§	4.0 Ø		§J	2.0	500m	60	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	T046	A
45▼	SDT5002	40m§	4.0 Ø		§J	2.0	500m	80	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	T046	A
46▼	SDT5003	40m§	4.0 Ø		§J	2.0	500m	100	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	T046	A
47▼	SDT5004	40m§	4.0 Ø		§J	2.0	500m	140	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	T046	A
48▼	SDT5005	40m§	4.0 Ø		§J	2.0	500m	180	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	T046	A
49▼	SDT5006	40m§	4.0 Ø		§J	2.0	500m	60	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	T046	A
50▼	SDT5007	40m§	4.0 Ø		§J	2.0	500m	80	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	T046	A
51▼	SDT5008	40m§	4.0 Ø		§J	2.0	500m	100	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	T046	A
52▼	SDT5009	40m§	4.0 Ø		§J	2.0	500m	140	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	T046	A
53▼	SDT5010	40m§	4.0 Ø		§J	2.0	500m	180	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	T046	A
54▼	SDT5011	40m§	4.0 Ø		§J	2.0	500m	60	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	T046	A
55▼	SDT5012	40m§	4.0 Ø		§J	2.0	500m	80	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	T046	A
56▼	SDT5013	40m§	4.0 Ø		§J	2.0	500m	100	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	T046	A
57▼	SDT5014	40m§	4.0 Ø		§J	2.0	500m	140	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	T046	A
58▼	SDT5015	40m§	4.0 Ø		§J	2.0	500m	180	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	T046	A
59▼	SDT5051	40m§	4.0 Ø		§J	2.0	500m	175	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	T046	A
60▼	SDT5052	40m§	4.0 Ø		§J	2.0	500m	200	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	T046	A
61▼	SDT5053	40m§	4.0 Ø		§J	2.0	500m	225	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	T046	A
62▼	SDT5054	40m§	4.0 Ø		§J	2.0	500m	175	8.0		100nØ	2.0Ø	500m	30	150 #	50M§Δ			PL	T046	A
63▼	SDT5055	40m§	4.0 Ø		§J	2.0	500m	200	8.0		100nØ	2.0Ø	500m	30	150 #	50M§Δ			PL	T046	A
64▼	SDT5056	40m§	4.0 Ø		§J	2.0	500m	225	8.0		100nØ	2.0Ø	500m	30	150 #	50M§Δ			PL	T046	A
65▼	SDT5501	40m§	4.0 Ø		§J	2.0	500m	60	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	T05	A
66▼	SDT5502	40m§	4.0 Ø		§J	2.0	500m	80	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	T05	A
67▼	SDT5503	40m§	4.0 Ø		§J	2.0	500m	100	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	T05	A
68▼	SDT5504	40m§	4.0 Ø		§J	2.0	500m	140	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	T05	A
69▼	SDT5505	40m§	4.0 Ø		§J	2.0	500m	180	8.0		100nØ	2.0Ø	500m	50	150 #	50M§Δ			PL	T05	A
70▼	SDT5506	40m§	4.0 Ø		§J	2.0	500m	60	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	T05	A
71▼	SDT5507	40m§	4.0 Ø		§J	2.0	500m	80	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	T05	A
72▼	SDT5508	40m§	4.0 Ø		§J	2.0	500m	100	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	T05	A
73▼	SDT5509	40m§	4.0 Ø		§J	2.0	500m	140	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	T05	A
74▼	SDT5510	40m§	4.0 Ø		§J	2.0	500m	180	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	T05	A
75▼	SDT5511	40m§	4.0 Ø		§J	2.0	500m	60	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	T05	A
76▼	SDT5512	40m§	4.0 Ø		§J	2.0	500m	80	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	T05	A
77▼	SDT5513	40m§	4.0 Ø		§J	2.0	500m	100	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	T05	A
78▼	SDT5514	40m§	4.0 Ø		§J	2.0	500m	140	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	T05	A
79▼	SDT5515	40m§	4.0 Ø		§J	2.0	500m	180	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	T05	A
80▼	SDT6101	40m	7.0			5.0	2.0	65	4.0	30	10u	5.0	2.0	10		450M			PL	T05	
81▼	SDT6102	40m	7.0			5.0	2.0	65	4.0	40	10u	5.0	2.0	10		450M			PL	T05	
82▼	SDT6103	40m	7.0			5.0	2.0	65	4.0	50	10u	5.0	2.0	10		450M			PL	T05	
83▼	SDT9001	40m§	4.0 Ø§		§J	5.0	500m	50	5.0	30	1.0uØ	2.0Ø	1.0	20 #		10M§Δ			PLΔ	T05	AØ
84▼	SDT9002	40m§	4.0 Ø§		§J	5.0	500m	70	5.0	50	1.0uØ	2.0Ø	1.0	20 #		10M§Δ			PLΔ	T05	AØ
85▼	SDT9003	40m§	4.0 Ø§		§J	5.0	500m	90	5.0	70	1.0uØ	2.0Ø	1.0	20 #		10M§Δ			PLΔ	T05	AØ
86▼	SDT9004	40m§	4.0 Ø§		§J	5.0	500m	50	5.0	30	1.0uØ	2.0Ø	1.0	30	90 #	10M§Δ			PLΔ	T05	AØ
87▼	SDT9005	40m§	4.0 Ø§		§J	5.0	500m	70	5.0	50	1.0uØ	2.0Ø	1.0	30	90 #	10M§Δ			PLΔ	T05	AØ
88▼	SDT9006	40m§	4.0 Ø§		§J	5.0	500m	90	5.0	70	1.0uØ	2.0Ø	1.0	30	90 #	10M§Δ			PLΔ	T05	AØ
89▼	SDT9007	40m§	4.0 Ø§		§J	5.0	500m	50	5.0	30	1.0uØ	2.0Ø	1.0	50	150 #	10M§Δ			PLΔ	T05	AØ
90▼	SDT9008	40m§	4.0 Ø§		§J	5.0	500m	70	5.0	50	1.0uØ	2.0Ø	1.0	50	150 #	10M§Δ			PLΔ	T05	AØ
91▼	SDT9009	40m§	4.0 Ø§		§J	5.0	500m	90	5.0	70	1.0uØ	2.0Ø	1.0	50	150 #	10M§Δ			PLΔ	T05	AØ
92▼	SDT9010	40m§	4.0 Ø§		§J	5.0	500m	50	5.0	30	1.0uØ	2.0Ø	1.0	100 #		10M§Δ			PLΔ	T05	AØ
93▼	SDT9011	40m§	4.0 Ø§		§J	5.0	500m	70	5.0	50	1.0uØ	2.0Ø	1.0	100 #		10M§Δ			PLΔ	T05	AØ
94▼	SDT9012	40m§	4.0 Ø§		§J	5.0	500m	90	5.0	70	1.0uØ	2.0Ø	1.0	100 #		10M§Δ			PLΔ	T05	AØ
95▼	D40N1	50m	6.2 Ø		§S	100m			5.0	250 §	10u	10Ø	20m	30	90	80M§			†	X51	A
96▼	D40N3	50m	6.2 Ø		§S	100m			5.0	300 §	10u	10Ø	20m	30	90	80M§			†	X51	A
97▼	SDT4301	50m	8.7			2.0	500m	40	10	40	150u	4.0	500m	20	60	4.0M			ME	T05	
98▼	SDT4302	50m	8.7			2.0	500m	60	10	60	150u	4.0	500m	20	60	4.0M			ME	T05	
99▼	SDT4303	50m	8.7			2.0	500m	80	10	80	150u	4.0	500m	20	60	4.0M			ME	T05	
100▼	SDT4304	50m	8.7			2.0	500m	40	10	40	150u	4.0	500m	40	120	4.0M			ME	T05	
101▼	SDT4305	50m	8.7			2.0	500m	60	10	60	150u	4.0	500m	40	120	4.0M			ME	T05	
102▼	SDT4306	50m	8.7			2.0	500m	80	10	80	150u	4.0	500m	40	120	4.0M			ME	T05	
103▼	SDT4307	50m	8.7			2.0	500m	40	10	40	150u	4.0	1.0	20	60	4.0M			ME	T05	
104▼	SDT4308	50m	8.7			2.0	500m	60	10	60	150u	4.0	1.0	20	60	4.0M			ME	T05	
105▼	SDT4309	50m	8.7			2.0	500m	80	10	80	150u	4.0	1.0	20	60	4.0M			ME	T05	
106▼	SDT4310	50m	8.7			2.0	500m	40	10	40	150u	4.0	1.0	40	120	4.0M			ME	T05	
107▼	SDT4311	50m	8.7			2.0	500m	60	10	60	150u	4.0	1.0	40	120	4.0M			ME	T05	
108▼	SDT4312	50m	8.7			2.0	500m	80	10	80	150u	4.0	1.0	40	120	4.0M			ME	T05	
109▼	SDT7401	50m§	5.0 Ø§		§J	5.0	2.0	60	5.0	40	1.0uØ	5.0Ø	5.0	40	120 #	15M§Δ			PLΔ	T05	AØ
110▼	SDT7402	50m§	5.0 Ø§		§J	5.0	2.0	80	5.0	60	1.0uØ	5.0Ø	5.0	40	120 #	15M§Δ			PLΔ	T05	AØ

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M T A E X M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L C E O A D D E
1▼	SDT7403	50m$	5.0 Ø$	§J	5.0	2.0	100	5.0	80	1.0uØ	5.0Ø	5.0	40	120 #	15M§Δ			PLΔ	TO5	AØ
2▼	SDT7411	50m$	5.0 Ø$	§J	5.0	2.0	60	5.0	40	1.0uØ	5.0Ø	5.0	20	60 #	15M§Δ			PLΔ	TO5	AØ
3▼	SDT7412	50m$	5.0 Ø$	§J	5.0	2.0	80	5.0	60	1.0uØ	5.0Ø	5.0	20	60 #	15M§Δ			PLΔ	TO5	AØ
4▼	SDT7413	50m$	5.0 Ø$	§J	5.0	2.0	100	5.0	80	1.0uØ	5.0Ø	5.0	20	60 #	15M§Δ			PLΔ	TO5	AØ
5▼	SDT7414	50m$	5.0 Ø$	§J	5.0	2.0	60	5.0	40	1.0uØ	5.0Ø	5.0	40	120 #	15M§Δ			PLΔ	TO5	AØ
6▼	SDT7415	50m$	5.0 Ø$	§J	5.0	2.0	80	5.0	60	1.0uØ	5.0Ø	5.0	40	120 #	15M§Δ			PLΔ	TO5	AØ
7▼	SDT7416	50mØ	5.0 Ø$	§J	5.0	2.0	100	5.0	80	1.0uØ	5.0Ø	5.0	40	120 #	15M§Δ			PLΔ	TO5	AØ
8▼	SDT7417	50mØ	5.0 Ø$	§J	5.0	2.0	60	5.0	40	1.0uØ	5.0Ø	5.0	100 #		15M§Δ			PLΔ	TO5	AØ
9▼	SDT7418	50mØ	5.0 Ø$	§J	5.0	2.0	80	5.0	60	1.0uØ	5.0Ø	5.0	100 #		15M§Δ			PLΔ	TO5	AØ
10▼	SDT7419	50mØ	5.0 Ø$	§J	5.0	2.0	100	5.0	80	1.0uØ	5.0Ø	5.0	100 #		15M§Δ			PLΔ	TO5	AØ
11▼	2N5711	57mØ	10 Ø	§J	750m		60	3.0	36		10Ø	50m	20	80					TO117	R
12▼	2N5767	57mØ	10 Ø	§J	350m		55	3.5	30										MT74	Z
13▼	2N5784	57m	10 Ø	§J	3.5	1.0	80	5.0	80	1.0m#	2.0Ø	1.0	20	100		625m			TO5	P
14▼	2N5785	57m	10 Ø	§J	3.5	1.0	65	5.0	65	1.0m#	2.0Ø	1.2	20	100		625m			TO5	P
15▼	2N5786	57m	10 Ø	§J	3.5	1.0	45	3.5	45	1.0m#	2.0Ø	1.6	20	100		625m			TO5	P
16▼	SDT6110	57m	10		10	4.0	65	4.0	30	10u	5.0	5.0	10		350M			PL	TO5	
17▼	SDT6111	57m	10		10	4.0	65	4.0	40	10u	5.0	5.0	10		350M			PL	TO5	
18▼	SDT6112	57m	10		10	4.0	65	4.0	50	10u	5.0	5.0	10		350M			PL	TO5	
19▼	2N5764	59mØ	10 Ø	§J	750m		55	3.5	35										MT74	Z
20▼#	BLY78	66m	8.0 Ø§	§J	1.0		40	4.0	20	100uΔ	15	750m	15 #		450M§			PE	MT24a	AØ
21▼	PPR1006§	66m	7.5 Ø		5.0		60		40		5.0Ø	3.0	40						MT27	AØ
22▼	PPR1008§	66m	7.5 Ø		5.0		90		75		5.0Ø	3.0	30						MT27	AØ
23▼	SDT6104	66m	11		5.0	2.0	65	4.0	30	10u	5.0	2.0	10		450M			PL	TO60	
24▼	SDT6105	66m	11		5.0	2.0	65	4.0	40	10u	5.0	2.0	10		450M			PL	TO60	
25▼	SDT6106	66m	11		5.0	2.0	65	4.0	50	10u	5.0	2.0	10		450M			PL	TO60	
26▼	SDT9901	66m	115		15	3.0	60	12	40	1.0u	5.0	5.0	20	60	5.0M			ME	TO61	
27▼	SDT9902	66m	115		15	3.0	80	12	60	1.0u	5.0	5.0	20	60	5.0M			ME	TO61	
28▼	SDT9903	66m	115		15	3.0	100	12	80	1.0u	5.0	5.0	20	60	5.0M			ME	TO61	
29▼	SDT9904	66m	115		15	3.0	120	12	100	1.0u	5.0	5.0	20	60	5.0M			ME	TO61	
30♦	MSA8506	68m	12 Ø	§J	1.0			4.0†	18 ☑	500u§♦	5.0Ø	1.0	5.0 #		300M§			DPE	MT72e	R
31▼	PT6635	69mØ	12 Ø	§S	600m		55	3.5	30											
32▼	D40D1†	72m	1.2	§S	1.0			5.0	30	100n§	2.0Ø	100m	50	150	200M§	1.0	25nØ	†	X51	A
33▼	D40D2†	72m	1.2	§S	1.0			5.0	30	100n§	2.0Ø	100m	120	360	200M§	1.0	25nØ	†	X51	A
34▼	D40D3†	72m	1.2	§S	1.0			5.0	30	100n§	2.0Ø	100m	290		200M§		25nØ	†	X51	A
35▼	D40D4†	72m	1.2	§S	1.0			5.0	45	100n§	2.0Ø	100m	50	150	200M§	1.0	25nØ	†	X51	A
36▼	D40D5†	72m	1.2	§S	1.0			5.0	45	100n§	2.0Ø	100m	120	360	200M§	1.0	25nØ	†	X51	A
37▼	D40D7†	72m	1.2	§S	1.0			5.0	60	100n§	2.0Ø	100m	50	150	200M§	2.0	25nØ	†	X51	A
38▼	D40D8†	72m	1.2	§S	1.0			5.0	60	100n§	2.0Ø	100m	120	360	200M§	2.0	25nØ	†	X51	A
39▼#	BLY55	80m	10 Ø	§J	1.0			4.0	20	5.0m§	5.0Ø	200m	10	60 Ø	450M§			PL	TO60	AØ
40▼#	BD135Δ	100m	6.5 ☑Ø	♦J	500m	100m	45	5.0	45	100nØ	1.0Ø	150m	40	250	50M§Δ	1.2		PE	X58	BØ
41▼#	BD135☑	100m	6.5 Ø☑	♦J	500m		45	5.0	45	100nØ	2.0Ø	150m	40	250	250M§	1.0		PE	X100	BØ
42▼#	BD137Δ	100m	6.5 ☑Ø	♦J	500m	100m	60	5.0	60	100nØ	1.0Ø	150m	40	160	50M§Δ	1.2		PE	X58	BØ
43▼#	BD137☑	100m	6.5 Ø☑	♦J	500m		60	5.0	60	100nØ	2.0Ø	150m	40	160	250M§	1.0		PE	X100	BØ
44▼#	BD139	100m	6.5 Ø☑	♦J	500m			5.0	80	100n	2.0Ø	150m	40	160	250M§	1.0		PE	X100	BØ
45▼	D42C1†	100m	2.1	§J	3.0			5.0	30	10u§	1.0Ø	200m	25		50M§	500m	100nØ	†	X51	A
46▼	D42C2†	100m	2.1	§J	3.0			5.0	30	10u§	1.0Ø	200m	40	120	50M§	500m	100nØ	†	X51	A
47▼	D42C3†	100m	2.1	§J	3.0			5.0	30	10u§	1.0Ø	200m	40	120	50M§	500m	100nØ	†	X51	A
48▼	D42C4†	100m	2.1	§J	3.0			5.0	45	10u§	1.0Ø	200m	25		50M§	500m	100nØ	†	X51	A
49▼	D42C5†	100m	2.1	§J	3.0			5.0	45	10u§	1.0Ø	200m	40	120	50M§	500m	100nØ	†	X51	A
50▼	D42C7†	100m	2.1	§J	3.0			5.0	60	10u§	1.0Ø	200m	25		50M§	500m	100nØ	†	X51	A
51▼	D42C8†	100m	2.1	§J	3.0			5.0	60	10u§	1.0Ø	200m	40	120	50M§	500m	100nØ	†	X51	A
52▼	SDT4551	100m	18 Ø	§J	5.0	500m	80	8.0	40	1.0uØ	2.0Ø	1.0	20	60 #	30M§	500m	80n	PL	MT9	
53▼	SDT4552	100m	18 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	20	60 #	30M§	500m	80nØ	PL	MT9	
54▼	SDT4553	100m	18 Ø	§J	5.0	500m	80	8.0	40	1.0uØ	2.0Ø	1.0	40	120 #	30M§	500m	80nØ	PL	MT9	
55▼	SDT4554	100m	18 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	40	120 #	30M§	500m	80nØ	PL	MT9	
56▼	SDT4555	100m	18 Ø	§J	5.0	500m	80	8.0	40	1.0uØ	2.0Ø	1.0	100 #		30M§	500m	80nØ	PL	MT9	
57▼	SDT4556	100m	18 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	100 #		30M§	500m	80nØ	PL	MT9	
58▼	SDT4583	100m	18 Ø	§J	5.0	500m	60	5.0	40	1.0uØ	5.0Ø	1.0	20	60	30M§	500m	80nØ	PL	MT9	
59▼	2N5765	105mØ	18 Ø	§J	1.5		55	3.5	35										MT74	Z
60▼	PT6636	114mØ	20 Ø	§S	1.0		55	3.5	30											
61▼	2N5768	118mØ	20 Ø	§J	700m		55	3.5	30										MT74	Z
62▼	MSA8507	126m	22 Ø	§J	2.0			4.0†	18 ☑	1.0m§♦	5.0Ø	1.0	5.0 #		500M§			DPE	MT72a	R
63▼#	BLY79	133m	16 Ø§	§J	2.0		40	4.0	20	250uΔ	15	1.0	15 #		400M§	2.0		PE	MT24a	AØ
64▼	SDT6113	133m	23		10	4.0	65	4.0	30	10u	5.0	5.0	10		350M			PL	TO60	
65▼	SDT6114	133m	23		10	4.0	65	4.0	40	10u	5.0	5.0	10		350M			PL	TO60	
66▼	SDT6115	133m	23		10	4.0	65	4.0	50	10u	5.0	5.0	10		350M			PL	TO60	
67▼	SDT4611	142m$	14 Ø	§J			60	8.0	40	1.0u		1.0	20	60	40M§				TO8	
68▼	SDT4612	142m$	14 Ø	§J			80	8.0	60	1.0uØ		1.0	20	60	40M§				TO8	
69▼	SDT4613	142m$	14 Ø	§J			100	8.0	80	1.0uØ		1.0	20	60	40M§				TO8	
70▼	SDT4614	142m$	14 Ø	§J			60	8.0	40	1.0u		1.0	40	120	60M§				TO8	
71▼	SDT4615	142m$	14 Ø	§J			80	8.0	60	1.0uØ		1.0	40	120	60M§				TO8	
72▼	SDT4616	142m$	14 Ø	§J			100	8.0	80	1.0uØ		1.0	40	120	60M§				TO8	
73▼	SDT4617	142m$	14 Ø	§J			60	8.0	40	1.0u		1.0	100		70M§				TO8	
74▼	SDT4618	142m$	14 Ø	§J			80	8.0	60	1.0uØ		1.0	100		70M§				TO8	
75▼	SDT4619	142m$	14 Ø	§J			100	8.0	80	1.0uØ		1.0	100		70M§				TO8	
76▼	2N5712	143mØ	25 Ø	§J	2.0		60	4.0	40		10Ø	100m	10	80					TO117	R
77♦	2N5662†	150m#	15 Ø	§J	1.0	200m	250	6.0	200	1.0u§	5.0Ø	500m	40	150 #	20M§Δ		150nØ		TO5	AØ
78♦	2N5663†	150m#	15 Ø	§J	1.0	200m	400	6.0	300	1.0u§	5.0Ø	500m	40	150 #	20M§Δ		150nØ		TO5	AØ
79♦	2N5666†	150m#	15 Ø	§J	3.0	600m	250	6.0	200	1.0u§	5.0Ø	1.0	40	120 #	20M§Δ		250nØ		TO5	AØ
80♦	2N5667†	150m#	15 Ø	§J	3.0	600m	400	6.0	300	1.0u§	5.0Ø	1.0	40	120 #	20M§Δ		250nØ		TO5	AØ
81▼#	BDY65	150m	1.0	§J	1.0	200m	150	7.0	100	500uΔ	5.0Ø	200m	50	300	30M§			PL	TO5	
82▼#	BDY66	150m	2.0	§J	1.0	200m	150	7.0	100	500uΔ	5.0Ø	200m	50	300	30M§			PL	MT13	
83▼#	BUY41	150m	1.0	§J	3.0	1.0	125	8.0	80		2.0Ø	1.0	40	300	40M§		300nØ☑	PE	TO5	
84▼	2N5655	160m	20 Ø	§J	500m	250m	275	6.0	250	10u	10Ø	50m	30	250 #	10m§Δ			†	X58	B
85▼	2N5656	160m	20 Ø	§J	500m	250m	325	6.0	300	10u	10Ø	50m	30	250 #	10M§Δ			†	X58	B
86▼	2N5657	160m	20 Ø	§J	500m	250m	375	6.0	350	10u	10Ø	50m	30	250 #	10M§Δ			†	X58	B
87▼#	BUY43	166m	24 Ø*	§J	4.0	2.0		7.0	40	1.0m§	1.5Ø	500m	40	60	1.0M§			DΔ	MD17e	CØ
88▼#	BUY46	166m	24 Ø*	§J	4.0	2.0		7.0	55	10m§†	1.5Ø	500m	25	100	1.0M§			DΔ	MD17e	CØ
89▼	SDT5901	166m$	16 Ø	§J	2.0	500m	60	8.0	40	100nØ	2.0	500m	50	150 #	50M§Δ	700m		PL	TO66	CØ
90▼	SDT5902	166m$	16 Ø	§J	2.0	500m	80	8.0	60	100nØ	2.0	500m	50	150 #	50M§Δ	700m		PL	TO66	CØ
91▼	SDT5903	166m$	16 Ø	§J	2.0	500m	100	8.0	80	100nØ	2.0	500m	50	150 #	50M§Δ	700m		PL	TO66	CØ
92▼	SDT5904	166m$	16 Ø	§J	2.0	500m	140	8.0	100	100nØ	2.0	500m	50	150 #	50M§Δ	700m		PL	TO66	CØ
93▼	SDT5905	166m$	16 Ø	§J	2.0	500m	180	8.0	120	100nØ	2.0	500m	50	150 #	50M§Δ	700m		PL	TO66	CØ
94▼	SDT5906	166m$	16 Ø	§J	2.0	500m	60	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	TO66	CØ
95▼	SDT5907	166m$	16 Ø	§J	2.0	500m	80	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	TO66	CØ
96▼	SDT5908	166m$	16 Ø	§J	2.0	500m	100	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	TO66	CØ
97▼	SDT5909	166m$	16 Ø	§J	2.0	500m	140	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	TO66	CØ
98▼	SDT5910	166m$	16 Ø	§J	2.0	500m	180	8.0		100nØ	2.0Ø	500m	30 #		50M§Δ			PL	TO66	CØ
99▼	SDT5911	166m$	16 Ø	§J	2.0	500m	60	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO66	CØ
100▼	SDT5912	166m$	16 Ø	§J	2.0	500m	80	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO66	CØ
101▼	SDT5913	166m$	16 Ø	§J	2.0	500m	100	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO66	CØ
102▼	SDT5914	166m$	16 Ø	§J	2.0	500m	140	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO66	CØ
103▼	SDT5915	166m$	16 Ø	§J	2.0	500m	180	8.0		100nØ	2.0Ø	500m	120 #		50M§Δ			PL	TO66	CØ
104♦	2N5660†	200m#	20 Ø	§J	1.0	200m	250	6.0	200	1.0u§	5.0Ø	500m	40	150 #	20M§Δ		150nØ		TO66	AØ
105♦	2N5661†	200m#	20 Ø	§J	1.0	200m	400	6.0	300	1.0u§	5.0Ø	500m	40	150 #	20M§Δ		150nØ		TO66	AØ
106♦	1714-0402†	200m	35 Ø	§J	10 #	2.0 #	40	7.0	40 ☑	2.5m#	2.0Ø	2.0	20		40M§Δ	300m	300nØ☑	EM	TO66	
107♦	1714-0405†	200m	35 Ø	§J	10 #	2.0 #	40	7.0	40 ☑	2.5m#	2.0Ø	5.0	20		40M§Δ	150m	400nØ☑	EM	TO66	
108♦	1714-0602†	200m	35 Ø	§J	10 #	2.0 #	60	7.0	60 ☑	2.5m#	2.0Ø	2.0	20		40M§Δ	300m	300nØ☑	EM	TO66	
109♦	1714-0605†	200m	35 Ø	§J	10 #	2.0 #	60	7.0	60 ☑	2.5m#	2.0Ø	5.0	20		40M§Δ	150m	400nØ☑	EM	TO66	
110♦	1714-0802†	200m	35 Ø	§J	10 #	2.0 #	80	7.0	80 ☑	2.5m#	2.0Ø	2.0	20		40M§Δ	300m	300nØ☑	EM	TO66	

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MAT AEXMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CONF
1♦	1714-0805†	200m	35 Ø	§J	10 #	2.0 #	80	7.0	80 ⊠	2.5m#	2.0Ø	5.0	20		40M§Δ	150m	400nØØ	EM	TO66	
2♦	1714-1002†	200m	35 Ø	§J	10 #	2.0 #	100	7.0	100 ⊠	2.5m#	2.0Ø	2.0	20		40M§Δ	300m	300nØØ	EM	TO66	
3♦	1714-1005†	200m	35 Ø	§J	10 #	2.0 #	100	7.0	100 ⊠	2.5m#	2.0Ø	5.0	20		40M§Δ	150m	400nØØ	EM	TO66	
4♦	1714-1202†	200m	35 Ø	§J	10 #	2.0 #	120	7.0	120 ⊠	2.5m#	2.0Ø	2.0	20		40M§Δ	300m	300nØØ	EM	TO66	
5♦	1714-1205†	200m	35 Ø	§J	10 #	2.0 #	120	7.0	120 ⊠	2.5m#	2.0Ø	5.0	20		40M§Δ	150m	400nØØ	EM	TO66	
6♦	1714-1402†	200m	35 Ø	§J	10 #	2.0 #	140	7.0	140 ⊠	2.5m#	2.0Ø	2.0	20		40M§Δ	300m	300nØØ	EM	TO66	
7♦	1714-1405†	200m	35 Ø	§J	10 #	2.0 #	140	7.0	140 ⊠	2.5m#	2.0Ø	5.0	20		40M§Δ	150m	400nØØ	EM	TO66	
8♦	1714-1602†	200m	35 Ø	§J	10 #	2.0 #	160	7.0	160 ⊠	2.5m#	2.0Ø	2.0	20		40M§Δ	300m	300nØØ	EM	TO66	
9♦	1714-1605†	200m	35 Ø	§J	10 #	2.0 #	160	7.0	160 ⊠	2.5m#	2.0Ø	5.0	20		40M§Δ	150m	400nØØ	EM	TO66	
10♦	1714-1802†	200m	35 Ø	§J	10 #	2.0 #	180	7.0	180 ⊠	2.5m#	2.0Ø	2.0	20		40M§Δ	300m	300nØØ	EM	TO66	
11♦	1714-1805†	200m	35 Ø	§J	10 #	2.0 #	180	7.0	180 ⊠	2.5m#	2.0Ø	5.0	20		40M§Δ	150m	400nØØ	EM	TO66	
12▼#	BD145	200m	15 Ø§	§J	5.0	1.0	60	5.0	60	10u	10Ø	500m	45		100M§	214m	280u†⊠	PEΔ	TO3	CØ
13▼#	BDY60†	200m	15 Ø§	§J	5.0	1.0	60	5.0	60	10u	10Ø	500m	45		100M§	140m	150u	PE	TO3	CØ
14▼#	BDY61†	200m	15 Ø§	§J	5.0	1.0	60	5.0	60	10u	10Ø	500m	45		100M§	180m	150u	PE	TO3	CØ
15▼#	BDY62†	200m	15 Ø§	§J	5.0	1.0	30	5.0	30	10u	10Ø	500m	45		100M§	180m	150u	PE	TO3	CØ
16▼	SDT4901	200m	35		5.0	1.0	225	8.0	200	1.0u	5.0	1.0	20	60	30M			PL	TO66	
17▼	SDT4902	200m	35		5.0	1.0	250	8.0	225	1.0u	5.0	1.0	20	60	30M			PL	TO66	
18▼	SDT4903	200m	35		5.0	1.0	275	8.0	250	1.0u	5.0	1.0	20	60	30M			PL	TO66	
19▼	SDT4904	200m	35		5.0	1.0	300	8.0	275	1.0u	5.0	1.0	20	60	30M			PL	TO66	
20▼	SDT4905	200m	35		5.0	1.0	325	8.0	300	1.0u	5.0	1.0	20	60	30M			PL	TO66	
21▼	SDT7511	200m§	20 Ø	§J			60	5.0	40	1.0u		5.0	20	60	40M§				TO8	
22▼	SDT7512	200m§	20 Ø	§J			80	5.0	60	1.0uØ		5.0	20	60	40M§				TO8	
23▼	SDT7513	200m§	20 Ø	§J			100	5.0	80	1.0uØ		5.0	20	60	40M§				TO8	
24▼	SDT7514	200m§	20 Ø	§J			60	5.0	40	1.0u		5.0	40	120	50M§				TO8	
25▼	SDT7515	200m§	20 Ø	§J			80	5.0	60	1.0uØ		5.0	40	120	50M§				TO8	
26▼	SDT7516	200m§	20 Ø	§J			100	5.0	80	1.0uØ		5.0	40	120	50M§				TO8	
27▼	SDT7517	200m§	20 Ø	§J			60	5.0	40	1.0u		5.0	100		60M§				TO8	
28▼	SDT7518	200m§	20 Ø	§J			80	5.0	60	1.0uØ		5.0	100		60M§				TO8	
29▼	SDT7519	200m§	20 Ø	§J			100	5.0	80	1.0uØ		5.0	100		60M§				TO8	
30▼	PPR1007§	250m	35 Ø		10		60		40		5.0Ø	3.0	40						TO60	AØ
31▼	PPR1009§	250m	35 Ø		10		90		75		5.0Ø	3.0	30						TO60	AØ
32▼	SDT7901	250m§	25 Ø	§J	10		225	8.0	200	1.0uØ	5.0Ø	5.0	20	60 #	50M§Δ			PL	TO66	CØ
33▼	SDT7902	250m§	25 Ø	§J	10		250	8.0	225	1.0uØ	5.0Ø	5.0	20	60 #	50M§Δ			PL	TO66	CØ
34▼	SDT7903	250m§	25 Ø	§J	10		275	8.0	250	1.0uØ	5.0Ø	5.0	20	60 #	50M§Δ			PL	TO66	CØ
35▼	SDT7904	250m§	25 Ø	§J	10		325	8.0	300	1.0uØ	5.0Ø	5.0	20	60 #	50M§Δ			PL	TO66	CØ
36▼	SDT7905	250m§	25 Ø	§J	10		350	8.0	325	1.0uØ	5.0Ø	5.0	20	60 #	50M§Δ			PL	TO66	CØ
37▼	SDT7907	250m	43		10	2.0	200	8.0	200	10u	5.0	5.0	15		30M			PL	TO66	
38▼	SDT7908	250m	43		10	2.0	250	8.0	250	10u	5.0	5.0	15		30M			PL	TO66	
39▼	SDT7909	250m	43		10	2.0	300	8.0	300	10u	5.0	5.0	15		30M			PL	TO66	
40▼	SDT7910	250m	43		10	2.0	150	8.0	150	10u	5.0	5.0	10		30M			PL	TO66	
41▼	2N5713	256mØ	45 Ø	§J	5.0		60	4.0	40		10Ø	100m	10	80					TO117	R
42▼	SDT6001	266m	40 Ø	§J	5.0		100	5.0	50	1.0uØ	5.0Ø	1.0	10	120 #	30M	1.0		PL	MT24	
43▼	SDT6011	266m	40 Ø	§J	5.0		80	8.0	40	1.0uØ	5.0Ø	1.0	20	60 #	30M§	500m		PL	MT24	
44▼	SDT6012	266m	40 Ø	§J	5.0		100	8.0	80	1.0uØ	5.0Ø	1.0	20	60 #	30M§	500m		DPL	MT24	
45▼	SDT6013	266m	40 Ø	§J	5.0		80	8.0	40	1.0uØ	5.0Ø	1.0	40	120 #	30M	500m		PL	MT24	
46▼	SDT6014	266m	40 Ø	§J	5.0		100	8.0	80	1.0uØ	5.0Ø	1.0	40	120 #	30M	500m		PL	MT24	
47▼	SDT6015	266m	40 Ø	§J	5.0		80	8.0	40	1.0uØ	5.0Ø	1.0	100 #		30M	500m		PL	MT24	
48▼	SDT6016	266m	40 Ø	§J	5.0		100	8.0	80	1.0uØ	5.0Ø	1.0	100 #		30M	500m		PL	MT24	
49▼	SDT6031	266m	40 Ø	§J	5.0	500m	60	5.0	40	1.0uØ	5.0Ø	1.0	20	60	30M§	500m		PL	MT24	
50▼	MSA8508	286m	50 Ø	§J	5.0			4.0†	18 ⊠	1.0m§♦	5.0Ø	2.0	5.0 #		400M§			DPE	MT72a	R
51♦	2N2877†	300m§	30 Ø	§J	5.0	500m	80	8.0	60	100n♦Ø	2.0Ø	1.0	20	60 #	30M§Δ		120n		TO111	AØ
52♦	2N2878†	300m§	30 Ø	§J	5.0	500m	80	8.0	60	100n♦Ø	2.0Ø	1.0	40	120 #	50M§Δ		80n		TO111	AØ
53♦	2N2879†	300m§	30 Ø	§J	5.0	500m	100	8.0	80	100n♦Ø	2.0Ø	1.0	20	60 #	30M§Δ		120n		TO111	AØ
54♦	2N2880†	300m§	30 Ø	§J	5.0	500m	100	8.0	80	100n♦Ø	2.0Ø	1.0	40	120 #	50M§Δ		80n		TO111	AØ
55♦	2N5664†	300m#	30 Ø	§J	3.0	600m	250	6.0	200	1.0u§	5.0Ø	1.0	40	120 #	20M§Δ		250nØ		TO66	AØ
56♦	2N5665†	300m#	30 Ø	§J	3.0	600m	400	6.0	300	1.0u§	5.0Ø	1.0	40	120 #	20M§Δ		250nØ		TO66	AØ
57▼#	BUY39	300m	2.0	§J	5.0	1.0	100	8.0	80	50uΔ	2.0Ø	1.0	40	240	40M§			PE	MT53	
58▼#	BUY40	300m	2.0	§J	5.0	1.0	100	8.0	80	50uΔ	2.0Ø	1.0	40	240	40M§			PE	MT42	
59▼	SDT7711	300m	55		15	3.0	60	20	40	10u	5.0	5.0	20	80	5.0M			PL	TO111	
60▼	SDT7712	300m	55		15	3.0	80	20	60	10u	5.0	5.0	20	80	5.0M			PL	TO111	
61▼	SDT7713	300m	55		15	3.0	100	20	80	10u	5.0	5.0	20	80	5.0M			PL	TO111	
62▼	SDT7714	300m	55		15	3.0	120	20	100	10u	5.0	5.0	20	80	5.0M			PL	TO111	
63▼	SDT7715	300m	55		15	3.0	140	20	125	10u	5.0	5.0	20	80	5.0M			PL	TO111	
64▼	SDT7716	300m	55		15	3.0	165	20	150	10u	5.0	5.0	20	80	5.0M			PL	TO111	
65♦	1718-0402†	333m§	33 Ø	§J	10 #	2.0 #	40	7.0	40 ⊠	200u#	2.0Ø	2.0	20		40M§Δ	250m	300nØØ	EM	TO111	G
66♦	1718-0405†	333m§	33 Ø	§J	10 #	2.0 #	40	7.0	40 ⊠	200u#	2.0Ø	5.0	20		40M§Δ	120m	400nØØ	EM	TO111	G
67♦	1718-0602†	333m§	33 Ø	§J	10 #	2.0 #	60	7.0	60 ⊠	200u#	2.0Ø	2.0	20		40M§Δ	250m	300nØØ	EM	TO111	G
68♦	1718-0605	333m§	33 Ø	§J	10 #	2.0 #	60	7.0	60 ⊠	200u#	2.0Ø	5.0	20		40M§Δ	120m	400nØØ	EM	TO111	G
69♦	1718-0802†	333m§	33 Ø	§J	10 #	2.0 #	80	7.0	80 ⊠	200u#	2.0Ø	2.0	20		40M§Δ	250m	300nØØ	EM	TO111	G
70♦	1718-0805†	333m§	33 Ø	§J	10 #	2.0 #	80	7.0	80 ⊠	200u#	2.0Ø	5.0	20		40M§Δ	120m	400nØØ	EM	TO111	G
71♦	1718-1002†	333m§	33 Ø	§J	10 #	2.0 #	100	7.0	100 ⊠	200u#	2.0Ø	2.0	20		40M§Δ	250m	300nØØ	EM	TO111	G
72♦	1718-1005†	333m	33 Ø	§J	10 #	2.0 #	100	7.0	100 ⊠	200u#	2.0Ø	5.0	20		40M§Δ	120m	400nØØ	EM	TO111	G
73♦	1718-1202†	333m	33 Ø	§J	10 #	2.0 #	120	7.0	120 ⊠	200u#	2.0Ø	2.0	20		40M§Δ	250m	300nØØ	EM	TO111	G
74♦	1718-1205†	333m	33 Ø	§J	10 #	2.0 #	120	7.0	120 ⊠	200u#	2.0Ø	5.0	20		40M§Δ	120m	400nØØ	EM	TO111	G
75♦	1718-1402†	333m	33 Ø	§J	10 #	2.0 #	140	7.0	140 ⊠	200u#	2.0Ø	2.0	20		40M§Δ	250m	300nØØ	EM	TO111	G
76♦	1718-1405†	333m	33 Ø	§J	10 #	2.0 #	140	7.0	140 ⊠	200u#	2.0Ø	5.0	20		40M§Δ	120m	400nØØ	EM	TO111	G
77♦	1718-1602†	333m	33 Ø	§J	10 #	2.0 #	160	7.0	160 ⊠	200u#	2.0Ø	2.0	20		40M§Δ	250m	300nØØ	EM	TO111	G
78♦	1718-1605†	333m	33 Ø	§J	10 #	2.0 #	160	7.0	160 ⊠	200u#	2.0Ø	5.0	20		40M§Δ	120m	400nØØ	EM	TO111	G
79♦	1718-1802†	333m	33 Ø	§J	10 #	2.0 #	180	7.0	180	200u#	2.0Ø	2.0	20		40M§Δ	250m	300nØØ	EM	TO111	G
80♦	1718-1805†	333m§	33 Ø	§J	10 #	2.0 #	180	7.0	180 ⊠	200u#	2.0Ø	5.0	20		40M§Δ	120m	400nØØ	EM	TO111	G
81▼	SDT6308	333m§	30 Ø	§J	5.0	500m	60	8.0	40	1.0u	2.0Ø	1.0	20	60 #	30M§	500m		PLD	MT42	
82▼	SDT6309	333m§	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	2.0Ø	1.0	20	60 #	30M§	500m		PLD	MT42	
83▼	SDT6310	333m§	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	20	60 #	30M§	500m		PLD	MT42	
84▼	SDT6311	333m§	30 Ø	§J	5.0	500m	60	8.0	40	1.0u	2.0Ø	1.0	40	120 #	30M§	500m		PLD	MT42	
85▼	SDT6312	333m§	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	2.0Ø	1.0	40	120 #	30M§	500m		PLD	MT42	
86▼	SDT6313	333m§	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	40	120 #	30M§	500m		PLD	MT42	
87▼	SDT6314	333m§	30 Ø	§J	5.0	500m	60	8.0	40	1.0u	2.0Ø	1.0	100 #		30M§	500m		PLD	MT42	
88▼	SDT6315	333m§	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	2.0Ø	1.0	100 #		30M§	500m		PLD	MT42	
89▼	SDT6316	333m§	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	100 #		30M§	500m		PLD	MT42	
90▼	SDT6408	333m§	30 Ø	§J	5.0	500m	60	8.0	40	1.0u	2.0Ø	1.0	20	60 #	30M§	500m		PLD	MT53	GN
91▼	SDT6409	333m§	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	2.0Ø	1.0	20	60 #	30M§	500m		PLD	MT53	GN
92▼	SDT6410	333m§	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	20	60 #	30M§	500m		PLD	MT53	GN
93▼	SDT6411	333m§	30 Ø	§J	5.0	500m	60	8.0	40	1.0u	2.0Ø	1.0	40	120 #	30M§	500m		PLD	MT53	GN
94▼	SDT6412	333m§	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	2.0Ø	1.0	40	120 #	30M§	500m		PLD	MT53	GN
95▼	SDT6413	333m§	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	40	120 #	30M§	500m		PLD	MT53	GN
96▼	SDT6414	333m§	30 Ø	§J	5.0	500m	60	8.0	40	1.0u	2.0Ø	1.0	100 #		30M§	500m		PLD	MT53	GN
97▼	SDT6415	333m§	30 Ø	§J	5.0	500m	80	8.0	60	1.0uØ	2.0Ø	1.0	100 #		30M§	500m		PLD	MT53	GN
98▼	SDT6416	333m§	30 Ø	§J	5.0	500m	100	8.0	80	1.0uØ	2.0Ø	1.0	100 #		30M§	500m		PLD	MT53	GN
99▼	2N5714	400mØ	70 Ø	§J	8.0		60	4.0	40		10Ø	200m	10	80					MD36	FØ
100▼#	2SD201	400m	50 Ø	§S	6.0	3.0	90	7.0	60	50uØ	4.0Ø	3.0	20	40 Ø	8.0M†	500m			TO3	CØ
101▼#	2SD202	400m	50 Ø	§S	6.0	3.0	110	7.0	80	30uØ	4.0Ø	3.0	20	40 Ø	8.0M†	500m			TO3	CØ
102▼#	2SD203	400m	50 Ø	§S	6.0	3.0	130	7.0	100	30uØ	4.0Ø	3.0	20	40 Ø	8.0M†	500m			TO3	CØ
103▼	SDM2301	400m	70		10	500m	60	10	40	1.0u	5.0	5.0	2.0k		30M			PL	X21	
104▼	SDM2302	400m	70		10	500m	80	10	60	1.0u	5.0	5.0	2.0k		30M			PL	X21	
105▼	SDM2303	400m	70		10	500m	100	10	80	1.0u	5.0	5.0	2.0k		30M			PL	X21	
106▼	SDT1150	400m	70		5.0	1.0	250	8.0	200	5.0m	5.0	1.0	15		2.0M			PL	TO3	
107▼	SDT1151	400m	70		5.0	1.0	400	8.0	325	5.0m	5.0	1.0	15		2.0M			PL	TO3	
108▼	SDT1152	400m	70		5.0	1.0	500	8.0	400	5.0m	5.0	1.0	15		2.0M			PL	TO3	
109▼	SDT1153	400m	70		5.0	1.0	600	8.0	400	5.0m	5.0	1.0	15		2.0M			PL	TO3	
110▼	SDT1154	400m	70		5.0	1.0	700	8.0	400	5.0m	5.0	1.0	15		2.0M			PL	TO3	

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AEXMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	Ic (A)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUCTURE	DWG. No.	LEAD CODE
1▼	SDT1155	400m	70		5.0	1.0	250	8.0	200	1.0m	5.0	2.0	10	50	2.0M			PL	TO3	
2▼	SDT1156	400m	70		5.0	1.0	400	8.0	325	1.0m	5.0	2.0	10	50	2.0M			PL	TO3	
3▼	SDT1157	400m	70		5.0	1.0	500	8.0	400	1.0m	5.0	2.0	10	50	2.0M			PL	TO3	
4▼	SDT1158	400m	70		5.0	1.0	600	8.0	400	1.0m	5.0	2.0	10	50	2.0M			PL	TO3	
5▼	SDT1159	400m	70		5.0	1.0	700	8.0	400	1.0m	5.0	2.0	10	50	2.0M			PL	TO3	
6▼	SDT1160	400m	70		5.0	1.0	250	8.0	200	1.0m	5.0	3.0	10		2.0M			PL	TO3	
7▼	SDT1161	400m	70		5.0	1.0	400	8.0	325	1.0m	5.0	3.0	10		2.0M			PL	TO3	
8▼	SDT1162	400m	70		5.0	1.0	500	8.0	400	1.0m	5.0	3.0	10		2.0M			PL	TO3	
9▼	SDT1163	400m	70		5.0	1.0	600	8.0	400	1.0m	5.0	3.0	10		2.0M			PL	TO3	
10▼	SDT1164	400m	70		5.0	1.0	700	8.0	400	1.0m	5.0	3.0	10		2.0M			PL	TO3	
11♦	TIXP39§	400m	2.0	§J	10	4.0	80	5.0	80	2.0mΔ	4.0Ø	5.0	40	200 #	120M§Δ				TO111	A
12♦	TIXP40§	400m	2.0	§J	10	4.0	70	5.0	70	2.0mΔ	4.0Ø	5.0	40	200 #	120M§Δ				TO111	A
13▼	JAN2N2812†	500m	4.0	§C	10	2.0	80	8.0	60	100n	5.0Ø	5.0	40	120 #	15M§Δ		350nØ		TO61	AØ
14▼	JAN2N2814†	500m	4.0	§C	10	2.0	120	8.0	80	100n	5.0Ø	5.0	40	120 #	15M§Δ		350nØ		TO61	AØ
15♦	1716-0402†	500m§	50 Ø	§J	10 #	2.0 #	40	7.0	40 ☑	200u#	2.0Ø	2.0	20		40M§Δ	250m	300nØ☑	EM	TO61	A
16♦	1716-0405†	500m§	50 Ø	§J	10 #	2.0 #	40	7.0	40 ☑	200u#	2.0Ø	5.0	20		40M§Δ	120m	400nØ☑	EM	TO61	A
17♦	1716-0602†	500m§	50 Ø	§J	10 #	2.0 #	60	7.0	60 ☑	200u#	2.0Ø	2.0	20		40M§Δ	250m	300nØ☑	EM	TO61	A
18♦	1716-0605†	500m§	50 Ø	§J	10 #	2.0 #	60	7.0	60 ☑	200u#	2.0Ø	5.0	20		40M§Δ	120m	400nØ☑	EM	TO61	A
19♦	1716-0802†	500m§	50 Ø	§J	10 #	2.0 #	80	7.0	80 ☑	200u#	2.0Ø	2.0	20		40M§Δ	250m	300nØ☑	EM	TO61	A
20♦	1716-0805†	500m§	50 Ø	§J	10 #	2.0 #	80	7.0	80 ☑	200u#	2.0Ø	5.0	20		40M§Δ	120m	400nØ☑	EM	TO61	A
21♦	1716-1002†	500m§	50 Ø	§J	10 #	2.0 #	100	7.0	100 ☑	200u#	2.0Ø	2.0	20		40M§Δ	250m	300nØ☑	EM	TO61	A
22♦	1716-1005†	500m§	50 Ø	§J	10 #	2.0 #	100	7.0	100 ☑	200u#	2.0Ø	5.0	20		40M§Δ	120m	400nØ☑	EM	TO61	A
23♦	1716-1202†	500m§	50 Ø	§J	10 #	2.0 #	120	7.0	120 ☑	200u#	2.0Ø	2.0	20		40M§Δ	250m	300nØ☑	EM	TO61	A
24♦	1716-1205†	500m§	50 Ø	§J	10 #	2.0 #	120	7.0	120 ☑	200u#	2.0Ø	5.0	20		40M§Δ	120m	400nØ☑	EM	TO61	A
25♦	1716-1402†	500m§	50 Ø	§J	10 #	2.0 #	140	7.0	140 ☑	200u#	2.0Ø	2.0	20		40M§Δ	250m	300nØ☑	EM	TO61	A
26♦	1716-1405†	500m§	50 Ø	§J	10 #	2.0 #	140	7.0	140 ☑	200u#	2.0Ø	5.0	20		40M§Δ	120m	400nØ☑	EM	TO61	A
27♦	1716-1602†	500m§	50 Ø	§J	10 #	2.0 #	160	7.0	160 ☑	200u#	2.0Ø	2.0	20		40M§Δ	250m	300nØ☑	EM	TO61	A
28♦	1716-1605†	500m§	50 Ø	§J	10 #	2.0 #	160	7.0	160 ☑	200u#	2.0Ø	5.0	20		40M§Δ	120m	400nØ☑	EM	TO61	A
29♦	1716-1802†	500m§	50 Ø	§J	10 #	2.0 #	180	7.0	180 ☑	200u#	2.0Ø	2.0	20		40M§Δ	250m	300nØ☑	EM	TO61	A
30▼	1716-1805†	500m§	50 Ø	§J	10 #	2.0 #	180	7.0	180 ☑	200u#	2.0Ø	5.0	20		40M§Δ	120m	400nØ☑	EM	TO61	A
31▼#	BDY63	500m	3.5	§J	10	4.0	100	8.0	80	100uΔ	4.0Ø	5.0	30	150	40M§			PE	TO61	A
32▼	PPR1010§	500mØ	50 Ø§		25		60		50		5.0Ø	10	60						TO61	AØ
33▼	PPR1011§	500mØ	50 Ø§		25		60		50		5.0Ø	10	60						TO61	A
34▼	PPR1012§	500mØ	50 Ø§		25		90		75		5.0Ø	10	60						TO61	AØ
35▼	PPR1013§	500mØ	50 Ø§		25		90		75		5.0Ø	10	60						TO61	A
36▼	SDT7011	500m§	50 Ø	§J	10	2.0	60	5.0	40	1.0uØ	5.0Ø	5.0	20	60 #	15M§Δ			PL	TO61	Ø
37▼	SDT7012	500m§	50 Ø	§J	10	2.0	80	5.0	60	1.0uØ	5.0Ø	5.0	20	60 #	15M§Δ			PL	TO61	Ø
38▼	SDT7013	500m§	50 Ø	§J	10	2.0	100	5.0	80	1.0uØ	5.0Ø	5.0	20	60 #	15M§Δ			PL	TO61	Ø
39▼	SDT7014	500m§	50 Ø	§J	10	2.0	60	5.0	40	1.0uØ	5.0Ø	5.0	40	120 #	15M§Δ			PL	TO61	Ø
40▼	SDT7015	500m§	50 Ø	§J	10	2.0	80	5.0	60	1.0uØ	5.0Ø	5.0	40	120 #	15M§Δ			PL	TO61	Ø
41▼	SDT7016	500m§	50 Ø	§J	10	2.0	100	5.0	80	1.0uØ	5.0Ø	5.0	40	120 #	15M§Δ			PL	TO61	Ø
42▼	SDT7017	500m§	50 Ø	§J	10	2.0	60	5.0	40	1.0uØ	5.0Ø	5.0	100 #		15M§Δ			PL	TO61	Ø
43▼	SDT7018	500m§	50 Ø	§J	10	2.0	80	5.0	60	1.0uØ	5.0Ø	5.0	100 #		15M§Δ			PL	TO61	Ø
44▼	SDT7019	500m§	50 Ø	§J	10	2.0	100	5.0	80	1.0uØ	5.0Ø	5.0	100 #		15M§Δ			PL	TO61	Ø
45▼	SDT7140	500m	87		10	2.0	120	8.0	100	100n	5.0	5.0	40	120	50M			PL	TO61	
46▼	SDT7141	500m	87		10	2.0	200	8.0	150	100n	5.0	5.0	40	120	50M			PL	TO61	
47▼	SDT7150	500m	87		10	2.0	140	8.0	120	500n	5.0	5.0	20	60	50M			PL	TO61	
48▼	SDT7151	500m	87		10	2.0	170	8.0	150	500n	5.0	5.0	20	60	50M			PL	TO61	
49▼	SDT7152	500m	87		10	2.0	220	8.0	200	500n	5.0	5.0	20	60	50M			PL	TO61	
50▼	SDT7154	500m	87		10	2.0	140	8.0	120	500n	5.0	5.0	40	120	50M			PL	TO61	
51▼	SDT7155	500m	87		10	2.0	170	8.0	150	500n	5.0	5.0	40	120	50M			PL	TO61	
52▼	SDT7156	500m	87		10	2.0	220	8.0	200	500n	5.0	5.0	40	120	50M			PL	TO61	
53▼	SDT7801	500m	50 Ø	$	10	5.0	225	7.0	200	1.0uØ	5.0	5.0	20	60	30M§Δ	100m		PL	TO61	
54▼	SDT7802	500m	50 Ø	$	10	5.0	250	7.0	225	1.0uØ	5.0	5.0	20	60	30M§Δ	100m		PL	TO61	
55▼	SDT7803	500m	50 Ø	$	10	5.0	275	7.0	250	1.0uØ	5.0	5.0	20	60	30M§Δ	100m		PL	TO61	
56▼	SDT7804	500m	50 Ø	$	10	5.0	325	7.0	300	1.0uØ	5.0	5.0	20	60	30M§Δ	100m		PL	TO61	
57▼	SDT7805	500m	50 Ø	$	10	5.0	350	7.0	325	1.0uØ	5.0	5.0	20	60	30M§Δ	100m		PL	TO61	
58▼	SDT7806	500m§	50 Ø	§J	10		150	5.0	150	10uØ	5.0Ø	5.0	10 #					PL	MT50a	A
59▼	SDT7807	500m§	50 Ø	§J	10		200	5.0	200	10uØ	5.0Ø	5.0	15 #					PL	MT50a	A
60▼	SDT7808	500m§	50 Ø	§J	10		250	5.0	250	10uØ	5.0Ø	5.0	15 #					PL	MT50a	A
61▼	SDT7809	500m§	50 Ø	§J	10		300	5.0	300	10uØ	5.0Ø	5.0	15 #					PL	MT50a	A
62▼#	BUY21A	568m	85 Ø	§J	10	3.0	400	8.0	230	100u	5.0Ø	3.0	20	300	15M§		3.0u§☑	DM	TO3	
63▼#	BDY39	666m	75	§J	10	7.0		7.0	60	200u§	4.0Ø	4.0	20	70	1.1M§	200m		D	TO3	CØ
64▼	PP3000	666m	115 Ø		15		60		50		4.0Ø	5.0	12					DM	TO3	CØ
65▼	PP3001	666m	115 Ø		15		100		80		4.0Ø	5.0	12					DM	TO3	CØ
66▼	PP3002	666m	115 Ø		15		120		100		4.0Ø	5.0	12					DM	TO3	CØ
67▼	PP3003	666m	115 Ø		15		60		50		4.0Ø	5.0	12					DM	TO3	CØ
68▼	PP3004	666m	115 Ø		15		100		80		4.0Ø	5.0	12					DM	TO3	CØ
69▼	PP3005	666m	115 Ø		15		120		100		4.0Ø	5.0	12					DM	TO3	CØ
70▼	SDT7201	666m§	50 Ø	§J	10		225	8.0	200	1.0uØ	5.0Ø	5.0	20	60 #	50M§Δ			PL	TO3	A
71▼	SDT7202	666m§	50 Ø	§J	10		250	8.0	225	1.0uØ	5.0Ø	5.0	20	60 #	50M§Δ			PL	TO3	A
72▼	SDT7203	666m§	50 Ø	§J	10		275	8.0	250	1.0uØ	5.0Ø	5.0	20	60 #	50M§Δ			PL	TO3	A
73▼	SDT7204	666m§	50 Ø	§J	10		325	8.0	300	1.0uØ	5.0Ø	5.0	20	60 #	50M§Δ			PL	TO3	A
74▼	SDT7205	666m§	50 Ø	§J	10		350	8.0	325	1.0uØ	5.0Ø	5.0	20	60 #	50M§Δ			PL	TO3	A
75▼	SDT7206	666m	115		10	2.0	150	8.0	150	10u	5.0	5.0	10		30M			PL	TO3	
76▼	SDT7207	666m	115		10	2.0	200	8.0	200	10u	5.0	5.0	15		30M			PL	TO3	
77▼	SDT7208	666m	115		10	2.0	250	8.0	250	10u	5.0	5.0	15		30M			PL	TO3	
78▼	SDT7209	666m	115		10	2.0	300	8.0	300	10u	5.0	5.0	15		30M			PL	TO3	
79▼	SDT7601	666m	60 Ø$	§J	10	5.0	60	8.0	40	500n	5.0Ø	5.0	40	120 #	60M§	100m		PE	TO3	CØ
80▼	SDT7602	666m	60 Ø$	§J	10	5.0	80	8.0	60	500n	5.0Ø	5.0	40	120 #	60M§	100m		PE	TO3	CØ
81▼	SDT7603	666m	60 Ø$	§J	10	5.0	100	8.0	80	500n	5.0Ø	5.0	40	120 #	60M§	100m		PE	TO3	CØ
82▼	SDT7604	666m	60 Ø$	§J	10	5.0	140	8.0	120	500n	5.0Ø	5.0	40	120 #	60M§	100m		PE	TO3	CØ
83▼	SDT7605	666m	60 Ø$	§J	10	5.0	170	8.0	150	500n	5.0Ø	5.0	40	120 #	60M§	120m		PE	TO3	CØ
84▼	SDT7606	666m	60 Ø$	§J	10	5.0	220	8.0	200	500n	5.0Ø	5.0	40	120 #	60M§	120m		PE	TO3	CØ
85▼	SDT7607	666m	60 Ø	$	10	5.0	60	8.0	40	500n	5.0	5.0	20	60	60M§	100m		PL	TO3	CØ
86▼	SDT7608	666m	60 Ø	$	10	5.0	80	8.0	60	500n	5.0	5.0	20	60	60M§	100m		PL	TO3	CØ
87▼	SDT7609	666m	60 Ø	$	10	5.0	100	8.0	80	500n	5.0	5.0	20	60	60M§	100m		PL	TO3	CØ
88▼	SDT7610	666m	60 Ø	$	10	5.0	140	8.0	120	500n	5.0	5.0	20	60	60M§	100m		PL	TO3	CØ
89▼	SDT7611	666m	60 Ø	$	10	5.0	170	8.0	150	500n	5.0	5.0	20	60	60M§	120m		PL	TO3	CØ
90▼	SDT7612	666m	60 Ø	$	10	5.0	220	8.0	200	500n	5.0	5.0	20	60	60M§	120m		PL	TO3	CØ
91▼	SDT8105	666m	115		20	4.0	80	8.0	60	100u	5.0	10	40	120	30M			PL	X21	
92▼	SDT8106	666m	115		20	4.0	100	8.0	80	100u	5.0	10	40	120	30M			PL	X21	
93▼	SDT8110	666m	115		20	4.0	80	8.0	60	10u	5.0	10	100		30M			PL	X21	
94▼	SDT8111	666m	15		20	4.0	100	8.0	80	10u	5.0	10	100		30M			PL	X21	
95▼	SDT8112	666m	115		20	4.0	80	8.0	60	10u	5.0	10	20	60	30M			PL	X21	
96▼	SDT8113	666m	115		20	4.0	100	8.0	80	10u	5.0	10	20	60	30M			PL	X21	
97▼	SDT8114	666m	115		20	4.0	40	5.0	25	10u	5.0	10	40		30M			PL	X21	
98▼	SDT8115	666m	115		20	4.0	80	8.0	60	10u	5.0	10	40	120	30M			PL	X21	
99▼	SDT8116	666m	115		20	4.0	100	8.0	80	10u	5.0	10	40	120	30M			PL	X21	
100▼	SDT8131	666m	115		20	4.0	80	8.0	60	10u	5.0	10	40	120	30M			PL	X21	
101▼	SDT8132	666m	115		20	4.0	100	8.0	80	10u	5.0	10	40	120	30M			PL	X21	
102▼	SDT8133	666m	115		20	4.0	80	8.0	60	10u	5.0	10	100		30M			PL	X21	
103▼	SDT8134	666m	115		20	4.0	100	8.0	80	10u	5.0	10	100		30M			PL	X21	
104▼	TK9201	666m	115 Ø	§J	10	7.0	55	7.0	45	5.0m#	4.0	4.0	18		2.0M§Δ	275m			TO3	CØ
105▼	TK30551	666m	115 Ø	§C	15	7.0	55	7.0	45	2.0mΔ	4.0Ø	4.0	20	70	2.0M§Δ	275m			TO3	CØ
106▼	TK30552	666m	115 Ø	§C	15	7.0	100	7.0	80	700uΔ	4.0Ø	4.0	20	70	2.0M§Δ	275m			TO3	CØ
107▼	TK30553	666m	115 Ø	§C	15	7.0	120	7.0	100	700uΔ	4.0Ø	4.0	20	70	2.0M§Δ	275m			TO3	CØ
108▼	TK30554	666m	115 Ø	§C	15	7.0	140	7.0	120	700uΔ	4.0Ø	4.0	20	70	2.0M§Δ	275m			TO3	CØ
109▼	TK30555	666m	115 Ø	§C	15	7.0	55	7.0	45	2.0mΔ	4.0Ø	4.0	15	70	2.0M§Δ	275m			TO3	CØ
110▼	TK30556	666m	115 Ø	§C	15	7.0	80	7.0	60	700uΔ	4.0Ø	4.0	15	70	2.0M§Δ	275m			TO3	CØ

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	MT AEXMP	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC-TURE	DWG. No.	LEAD CODE
1▼	TK30557	666m	115 Ø	§C	15	7.0	100	7.0	80	700u△	4.0Ø	4.0	15	70	2.0M§△	275m			TO3	CØ
2▼	TK30558	666m	115 Ø	§C	15	7.0	120	7.0	100	700u△	4.0Ø	4.0	15	70	2.0M§△	275m			TO3	CØ
3▼	TK30559	666m	115 Ø	§C	15	7.0	140	7.0	120	700u△	4.0Ø	4.0	15	70	2.0M§△	275m			TO3	CØ
4▼	TK30560	666m	115 Ø	§C	15	7.0	40	5.0	30	5.0mA	2.0Ø	2.0	15		2.0M§△	275m			TO3	CØ
5▼	JAN2N5241†	715m	6.5	§C	10	5.0	400	6.0	400	500u△	5.0Ø	2.5	15	35 #	2.5M§△		800nØ		TO3	CØ
6▼	SDM2401	800m	140		10	500m	60	10	40	1.0u	5.0	5.0	2.0k		30M			PL	TO61	
7▼	SDM2402	800m	140		10	500m	80	10	60	1.0u	5.0	5.0	2.0k		30M			PL	TO61	
8▼	SDM2403	800m	140		10	500m	100	10	80	1.0u	5.0	5.0	2.0k		30M			PL	TO61	
9▼	SDT1050	800m	140		5.0	1.0	250	8.0	200	5.0	5.0	1.0	15		2.0M			PL	TO3	
10▼	SDT1051	800m	140		5.0	1.0	400	8.0	325	5.0	5.0	1.0	15		2.0M			PL	TO3	
11▼	SDT1052	800m	140		5.0	1.0	500	8.0	400	5.0	5.0	1.0	15		2.0M			PL	TO3	
12▼	SDT1053	800m	140		5.0	1.0	600	8.0	400	5.0	5.0	1.0	15		2.0M			PL	TO3	
13▼	SDT1054	800m	140		5.0	1.0	700	8.0	400	5.0	5.0	1.0	15		2.0M			PL	TO3	
14▼	SDT1055	800m	140		5.0	1.0	250	8.0	200	1.0m	5.0	2.0	10	50	2.0M			PL	TO3	
15▼	SDT1056	800m	140		5.0	1.0	400	8.0	325	1.0m	5.0	2.0	10	50	2.0M			PL	TO3	
16▼	SDT1057	800m	140		5.0	1.0	500	8.0	400	1.0m	5.0	2.0	10	50	2.0M			PL	TO3	
17▼	SDT1058	800m	140		5.0	1.0	600	8.0	400	1.0m	5.0	2.0	10	50	2.0M			PL	TO3	
18▼	SDT1059	800m	140		5.0	1.0	700	8.0	400	1.0m	5.0	2.0	10	50	2.0M			PL	TO3	
19▼	SDT1060	800m	140		5.0	1.0	250	8.0	200	1.0m	5.0	3.0	10		2.0M			PL	TO3	
20▼	SDT1061	800m	140		5.0	1.0	400	8.0	325	1.0m	5.0	3.0	10		2.0M			PL	TO3	
21▼	SDT1062	800m	140		5.0	1.0	500	8.0	400	1.0m	5.0	3.0	10		2.0M			PL	TO3	
22▼	SDT1063	800m	140		5.0	1.0	600	8.0	400	1.0m	5.0	3.0	10		2.0M			PL	TO3	
23▼	SDT1064	800m	140		5.0	1.0	700	8.0	400	1.0m	5.0	3.0	10		2.0M			PL	TO3	
24▼	SDT1250	800m	140		5.0	1.0	250	8.0	200	5.0m	5.0	1.0	15		2.0M			PL	TO61	
25▼	SDT1251	800m	140		5.0	1.0	400	8.0	325	5.0m	5.0	1.0	15		2.0M			PL	TO61	
26▼	SDT1252	800m	140		5.0	1.0	500	8.0	400	5.0m	5.0	1.0	15		2.0M			PL	TO61	
27▼	SDT1253	800m	140		5.0	1.0	600	8.0	400	5.0m	5.0	1.0	15		2.0M			PL	TO61	
28▼	SDT1254	800m	140		5.0	1.0	700	8.0	400	5.0m	5.0	1.0	15		2.0M			PL	TO61	
29▼	SDT1255	800m	140		5.0	1.0	250	8.0	200	1.0m	5.0	2.0	10	50	2.0M			PL	TO61	
30▼	SDT1256	800m	140		5.0	1.0	400	8.0	325	1.0m	5.0	2.0	10	50	2.0M			PL	TO61	
31▼	SDT1257	800m	140		5.0	1.0	500	8.0	400	1.0m	5.0	2.0	10	50	2.0M			PL	TO61	
32▼	SDT1258	800m	140		5.0	1.0	600	8.0	400	1.0m	5.0	2.0	10	50	2.0M			PL	TO61	
33▼	SDT1259	800m	140		5.0	1.0	700	8.0	400	1.0m	5.0	2.0	10	50	2.0M			PL	TO61	
34▼	SDT1260	800m	140		5.0	1.0	250	8.0	200	1.0m	5.0	3.0	10		2.0M			PL	TO61	
35▼	SDT1261	800m	140		5.0	1.0	400	8.0	325	1.0m	5.0	3.0	10		2.0M			PL	TO61	
36▼	SDT1262	800m	140		5.0	1.0	500	8.0	400	1.0m	5.0	3.0	10		2.0M			PL	TO61	
37▼	SDT1263	800m	140		5.0	1.0	600	8.0	400	1.0m	5.0	3.0	10		2.0M			PL	TO61	
38▼	SDT1264	800m	140		5.0	1.0	700	8.0	400	1.0m	5.0	3.0	10		2.0M			PL	TO61	
39▼	SDT3225	800m	140		10	2.0	40	6.0	40	10u	5.0	5.0	20	80	40M			PL	TO111	G
40▼	SDT3226	800m	140		10	2.0	60	6.0	60	10u	5.0	5.0	20	80	40M			PL	TO111	G
41▼	SDT3227	800m	140		10	2.0	80	6.0	80	10u	5.0	5.0	20	80	40M			PL	TO111	G
42▼	SDT3228	800m	140		10	2.0	100	6.0	100	10u	5.0	5.0	20	80	40M			PL	TO111	G
43▼	SDT3229	800m	140		10	2.0	120	6.0	120	10u	5.0	5.0	20	80	40M			PL	TO111	G
44▼	SDT9801	833m	90		15	3.0	60	12	40	1.0u	5.0	5.0	20	60	5.0M			ME	TO3	
45▼	SDT9802	833m	90		15	3.0	80	12	60	1.0u	5.0	5.0	20	60	5.0M			ME	TO3	
46▼	SDT9803	833m	90		15	3.0	100	12	80	1.0u	5.0	5.0	20	60	5.0M			ME	TO3	
47▼	SDT9804	833m	90		15	3.0	120	12	100	1.0u	5.0	5.0	20	60	5.0M			ME	TO3	
48▼	1743-0630†	853m§	150 Ø	§J	40 #	10 #	60	7.0	60 Ø	5.0m#	3.0Ø	30	20 #		30M§△		500nØØ	EM	TO3	CØ
49▼	1743-0610†	854m§	150 Ø	§J	40 #	10 #	60	7.0	60 Ø	5.0m#	2.0Ø	10	20 #		30M§△		300nØØ	EM	TO3	CØ
50▼	1743-0620†	854m§	150 Ø	§J	40 #	10 #	60	7.0	60 Ø	5.0m#	2.5Ø	20	20 #		30M§△		450nØØ	EM	TO3	CØ
51▼	1743-0810†	854m§	150 Ø	§J	40 #	10 #	80	7.0	80 Ø	5.0m#	2.0Ø	10	20 #		50M§△		300nØØ	EM	TO3	CØ
52▼	1743-0820†	854m§	150 Ø	§J	40 #	10 #	80	7.0	80 Ø	5.0m#	2.5Ø	20	20 #		30M§△		450nØØ	EM	TO3	CØ
53▼	1743-0830†	854m§	150 Ø	§J	40 #	10 #	80	7.0	80 Ø	5.0m#	3.0Ø	30	20 #		30M§△		500nØØ	EM	TO3	CØ
54▼	1743-1010†	854m§	150 Ø	§J	40 #	10 #	100	7.0	100 Ø	5.0m#	2.0Ø	10	20 #		30M§△		300nØØ	EM	TO3	CØ
55▼	1743-1020†	854m§	150 Ø	§J	40 #	10 #	100	7.0	100 Ø	5.0m#	2.5Ø	20	20 #		30M§△		450nØØ	EM	TO3	CØ
56▼	1743-1030†	854m§	150 Ø	§J	40 #	10 #	100	7.0	100 Ø	5.0m#	3.0Ø	30	20 #		30M§△		500nØØ	EM	TO3	CØ
57▼	1743-1210†	854m§	150 Ø	§J	40 #	10 #	120	7.0	120 Ø	5.0m#	2.0Ø	10	20 #		30M§△		300nØØ	EM	TO3	CØ
58▼	1743-1220†	854m§	150 Ø	§J	40 #	10 #	120	7.0	120 Ø	5.0m#	2.5Ø	20	20 #		30M§△		450nØØ	EM	TO3	CØ
59▼	1743-1230†	854m§	150 Ø	§J	40 #	10 #	120	7.0	120 Ø	5.0m#	3.0Ø	30	20 #		30M§△		500nØØ	EM	TO3	CØ
60▼	1743-1410†	854m§	150 Ø	§J	40 #	10 #	140	7.0	140 Ø	5.0m#	2.0Ø	10	20 #		30M§△		300nØØ	EM	TO3	CØ
61▼	1743-1420†	854m§	150 Ø	§J	40 #	10 #	140	7.0	140 Ø	5.0m#	2.5Ø	20	20 #		30M§△		450nØØ	EM	TO3	CØ
62▼	1743-1430†	854m§	150 Ø	§J	40 #	10 #	140	7.0	140 Ø	5.0m#	3.0Ø	30	20 #		30M§△		500nØØ	EM	TO3	CØ
63▼	1743-1610†	854m§	150 Ø	§J	40 #	10 #	160	7.0	160 Ø	5.0m#	2.0Ø	10	20 #		30M§△		300nØØ	EM	TO3	CØ
64▼	1743-1620†	854m§	150 Ø	§J	40 #	10 #	160	7.0	160 Ø	5.0m#	2.5Ø	20	20 #		30M§△		450nØØ	EM	TO3	CØ
65▼	1743-1630†	854m§	150 Ø	§J	40 #	10 #	160	7.0	160 Ø	5.0m#	3.0Ø	30	20 #		30M§△		500nØØ	EM	TO3	CØ
66▼	1743-1810†	854m§	150 Ø	§J	40 #	10 #	180	7.0	180 Ø	5.0m#	2.0Ø	10	20 #		30M§△		300nØØ	EM	TO3	CØ
67▼	1743-1820†	854m§	150 Ø	§J	40 #	10 #	180	7.0	180 Ø	5.0m#	2.5Ø	20	20 #		30M§△		450nØØ	EM	TO3	CØ
68▼	1743-1830†	854m§	150 Ø	§J	40 #	10 #	180	7.0	180 Ø	5.0m#	3.0Ø	30	20 #		30M§△		500nØØ	EM	TO3	CØ
69▼	1763-1830	854m§	85 Ø	§J	40 #	5.0	180	7.0	180 Ø	500m#	3.0Ø	30	20 #		30M§△		500nØØ	EM△	TO3	CØ
70▼	1843-2005†	854m§	85 Ø	§J	30 #	10 #	200	7.0	200 Ø	3.0mØ	5.0Ø	5.0	20 #		25M§△		500nØ	EM	TO3	CØ
71▼	1843-2010†	854m§	85 Ø	§J	30 #	10 #	200	7.0	200 Ø	3.0mØ	5.0Ø	10	15 #		25M§△		500nØ	EM	TO3	CØ
72▼	1843-2020†	854m§	85 Ø	§J	30 #	10 #	200	7.0	200 Ø	3.0mØ	5.0Ø	20	10 #		25M§△		500nØ	EM	TO3	CØ
73▼	1843-2205†	854m§	85 Ø	§J	30 #	10 #	225	7.0	225 Ø	3.0mØ	5.0Ø	5.0	20 #		25M§△		500nØ	EM	TO3	CØ
74▼	1843-2210†	854m§	85 Ø	§J	30 #	10 #	225	7.0	225 Ø	3.0mØ	5.0Ø	10	15 #		25M§△		500nØ	EM	TO3	CØ
75▼	1843-2220†	854m§	85 Ø	§J	30 #	10 #	225	7.0	225 Ø	3.0mØ	5.0Ø	20	10 #		25M§△		500nØ	EM	TO3	CØ
76▼	1843-2505†	854m§	85 Ø	§J	30 #	10 #	250	7.0	250 Ø	3.0mØ	5.0Ø	5.0	20 #		25M§△		500nØ	EM	TO3	CØ
77▼	1843-2510†	854m§	85 Ø	§J	30 #	10 #	250	7.0	250 Ø	3.0mØ	5.0Ø	10	15 #		25M§△		500nØ	EM	TO3	CØ
78▼	1843-2520†	854m§	85 Ø	§J	30 #	10 #	250	7.0	250 Ø	3.0mØ	5.0Ø	20	10 #		25M§△		500nØ	EM	TO3	CØ
79▼	1843-2705†	854m§	85 Ø	§J	30 #	10 #	275	7.0	275 Ø	3.0mØ	5.0Ø	5.0	20 #		25M§△		500nØ	EM	TO3	CØ
80▼	1843-2710†	854m§	85 Ø	§J	30 #	10 #	275	7.0	275 Ø	3.0mØ	5.0Ø	10	15 #		25M§△		500nØ	EM	TO3	CØ
81▼	1843-2720†	854m§	85 Ø	§J	30 #	10 #	275	7.0	275 Ø	3.0mØ	5.0Ø	20	10 #		25M§△		500nØ	EM	TO3	CØ
82▼	1843-3005†	854m§	85 Ø	§J	30 #	10 #	300	7.0	300 Ø	3.0mØ	5.0Ø	5.0	20 #		25M§△		500nØ	EM	TO3	CØ
83▼	1843-3010†	854m§	85 Ø	§J	30 #	10 #	300	7.0	300 Ø	3.0mØ	5.0Ø	10	15 #		25M§△		500nØ	EM	TO3	CØ
84▼	1843-3020†	854m§	85 Ø	§J	30 #	10 #	300	7.0	300 Ø	3.0mØ	5.0Ø	20	10 #		25M§△		500nØ	EM	TO3	CØ
85▼	1843-3205†	854m§	85 Ø	§J	30 #	10 #	325	7.0	325 Ø	3.0mØ	5.0Ø	5.0	20 #		25M§△		500nØ	EM	TO3	CØ
86▼	1843-3210†	854m§	85 Ø	§J	30 #	10 #	325	7.0	325 Ø	3.0mØ	5.0Ø	10	15 #		25M§△		500nØ	EM	TO3	CØ
87▼	1843-3220†	854m§	85 Ø	§J	30 #	10 #	325	7.0	325 Ø	3.0mØ	5.0Ø	20	10 #		25M§△		500n	EM	TO3	CØ
88▼	1843-3505†	854m§	85 Ø	§J	30 #	10 #	350	7.0	350 Ø	3.0mØ	5.0Ø	5.0	20 #		25M§△		500nØ	EM	TO3	CØ
89▼	1843-3510†	854m§	85 Ø	§J	30 #	10 #	350	7.0	350 Ø	3.0mØ	5.0Ø	10	15 #		25M§△		500nØ	EM	TO3	CØ
90▼	1843-3520†	854m§	85 Ø	§J	30 #	10 #	350	7.0	350 Ø	3.0mØ	5.0Ø	20	10 #		25M§△		500nØ	EM	TO3	CØ
91▼	1843-3705†	854m§	85 Ø	§J	30 #	10 #	375	7.0	375 Ø	3.0mØ	5.0Ø	5.0	20 #		25M§△		500nØ	EM	TO3	CØ
92▼	1843-3710†	854m§	85 Ø	§J	30 #	10 #	375	7.0	375 Ø	3.0mØ	5.0Ø	10	15 #		25M§△		500nØ	EM	TO3	CØ
93▼	1843-3720†	854m§	85 Ø	§J	30 #	10 #	375	7.0	375 Ø	3.0mØ	5.0Ø	20	10 #		25M§△		500nØ	EM	TO3	CØ
94▼	SDT9701	854m	150		30	3.0	100	7.0	80	5.0m	5.0	8.0	15	60	100k			ME	TO3	
95▼	SDT9702	854m	150		30	3.0	120	7.0	100	5.0m	5.0	8.0	15	60	100k			ME	TO3	
96▼	SDT9703	854m	150		30	3.0	140	7.0	120	5.0m	5.0	8.0	15	60	100k			ME	TO3	
97▼	SDT9704	854m	150		30	3.0	100	7.0	80	5.0m	5.0	5.0	20	80	100k			ME	TO3	
98▼	SDT9705	854m	150		30	3.0	120	7.0	100	5.0m	5.0	5.0	20	80	100k			ME	TO3	
99▼	SDT9706	854m	150		30	3.0	140	7.0	120	5.0m	5.0	5.0	20	80	100k			ME	TO3	
100▼	SDT9707	854m	150		30	3.0	80	7.0	60	10m	5.0	4.0	15		100k			ME	TO3	
101▼#	BUY51	862m	150 Ø	§J	30	10	60	8.0	60	10m	4.0Ø	10	20	150	10M§		1.5uØØ	EM	TO61	A
102▼#	BUY51A	862m	150 Ø	§J	30	10	60	8.0	60	10m	4.0Ø	10	20	150	10M§		1.5uØØ	EM	TO3	CØ
103▼#	BUY52	862m	150 Ø	§J	30	10	60	8.0	60	10m	4.0Ø	15	20	150	10M§		2.0uØØ	EM	TO61	A
104▼#	BUY52A	862m	150 Ø	§J	30	10	60	8.0	60	10m	4.0Ø	15	20	150	10M§		2.0uØØ	EM	TO3	CØ
105▼#	BUY53	862m	150 Ø	§J	30	10	100	8.0	100	10m	4.0Ø	10	20	150	10M§		1.5 ØØ	EM	TO61	A
106▼#	BUY53A	862m	150 Ø	§J	30	10	100	8.0	100	10m	4.0Ø	10	20	150	10M§		1.5uØØ	EM	TO3	CØ
107▼#	BUY54	862m	150 Ø	§J	30	10	100	8.0	100	10m	4.0Ø	15	20	150	10M§		2.0uØØ	EM	TO61	A
108▼#	BUY54A	862m	150 Ø	§J	30	10	100	8.0	100	10m	4.0Ø	15	20	150	10M§		2.0uØØ	EM	TO3	CØ
109▼#	2SD211	1.0	100 Ø	§S	10	4.0	60	7.0	40	50uØ	4.0Ø	5.0	15	30 Ø	8.0M†	500m			TO3	CØ
110▼#	2SD212	1.0	100 Ø	§S	10	4.0	90	7.0	60	30uØ	4.0Ø	5.0	15	30 Ø	8.0M†	500m			TO3	CØ

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	2 TYPE No.	1 MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M A X	T E M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O A D E
1▼#	2SD213	1.0	100 Ø	$S		10	4.0	110	7.0	80	30uØ	4.0Ø	5.0	15	30 Ø	8.0M↑	500m			TO3		CØ
2▼#	2SD214	1.0	100 Ø	$S		10	4.0	130	7.0	100	30uØ	4.0Ø	5.0	15	30 Ø	8.0M↑	500m			TO3		CØ
3▼	1748-0610†	1.0 $	175 Ø	$J		40 #	10 #	60	7.0	60 Ø	5.0m#	2.0Ø	10	20 #		30M$Δ		300nØØ	EM	T063		A
4▼	1748-0630†	1.0 $	175 Ø	$J		40 #	10 #	60	7.0	60 Ø	5.0m#	3.0Ø	30	20 #		30M$Δ		500nØØ	EM	T063		A
5▼	1748-0810†	1.0 $	175 Ø	$J		40 #	10 #	80	7.0	80 Ø	5.0m#	2.0Ø	10	20 #		30M$Δ		300nØØ	EM	T063		A
6▼	1748-0820†	1.0 $	175 Ø	$J		40 #	10 #	80	7.0	80 Ø	5.0m#	2.5Ø	20	20 #		30M$Δ		450nØØ	EM	T063		A
7▼	1748-0830†	1.0 $	175 Ø	$J		40 #	10 #	80	7.0	80 Ø	5.0m#	3.0Ø	30	20 #		30M$Δ		500nØØ	EM	T063		A
8▼	1748-1010†	1.0 $	175 Ø	$J		40 #	10 #	100	7.0	100 Ø	5.0m#	2.0Ø	10	20 #		30M$Δ		300nØØ	EM	T063		A
9▼	1748-1020†	1.0 $	175 Ø	$J		40 #	10 #	100	7.0	100 Ø	5.0m#	2.5Ø	20	20 #		30M$Δ		450nØØ	EM	T063		A
10▼	1748-1030†	1.0 $	175 Ø	$J		40 #	10 #	100	7.0	100	5.0m#	3.0Ø	30	20 #		30M$Δ		500nØØ	EM	T063		A
11▼	1748-1210†	1.0 $	175 Ø	$J		40 #	10 #	120	7.0	120 Ø	5.0m#	2.0Ø	10	20 #		30M$Δ		300nØØ	EM	T063		A
12▼	1748-1220†	1.0 $	175 Ø	$J		40 #	10 #	120	7.0	120 Ø	5.0m#	2.5Ø	20	20 #		30M$Δ		450nØØ	EM	T063		A
13▼	1748-1230†	1.0 $	175 Ø	$J		40 #	10 #	120	7.0	120 Ø	5.0m#	3.0Ø	30	20 #		30M$Δ		500nØØ	EM	T063		A
14▼	1748-1410†	1.0 $	175 Ø	$J		40 #	10 #	140	7.0	140 Ø	5.0m#	2.0Ø	10	20 #		30M$Δ		300nØØ	EM	T063		A
15▼	1748-1420†	1.0 $	175 Ø	$J		40 #	10 #	140	7.0	140 Ø	5.0m#	2.5Ø	20	20 #		30M$Δ		450nØØ	EM	T063		A
16▼	1748-1430†	1.0 $	175 Ø	$J		40 #	10 #	140	7.0	140 Ø	5.0m#	3.0Ø	30	20 #		30M$Δ		500nØØ	EM	T063		A
17▼	1748-1610†	1.0 $	175 Ø	$J		40 #	10 #	160	7.0	160 Ø	5.0m#	2.0Ø	10	20 #		30M$Δ		300nØØ	EM	T063		A
18▼	1748-1620†	1.0 $	175 Ø	$J		40 #	10 #	160	7.0	160 Ø	5.0m#	2.5Ø	20	20 #		30M$Δ		450nØØ	EM	T063		A
19▼	1748-1630†	1.0 $	175 Ø	$J		50 #	10 #	160	7.0	160 Ø	5.0m#	3.0Ø	30	20 #		30M$Δ		500nØØ	EM	T063		A
20▼	1748-1810†	1.0 $	175 Ø	$J		40 #	10 #	180	7.0	180 Ø	5.0m#	2.0Ø	10	20 #		30M$Δ		300nØØ	EM	T063		A
21▼	1748-1820†	1.0 $	175 Ø	$J		40 #	10 #	180	7.0	180 Ø	5.0m#	2.5Ø	20	20 #		30M$Δ		450nØØ	EM	T063		A
22▼	1748-1830†	1.0 $	175 Ø	$J		40 #	10 #	180	7.0	180 Ø	5.0m#	3.0Ø	30	20 #		30M$Δ		500nØØ	EM	T063		A
23▼	1768-1830	1.0 $	100 Ø	$J		40 #	5.0	180	7.0	180 Ø	500m#	3.0Ø	30	20 #		30M$Δ		500nØØ	EMΔ	T063		
24▼#	BDY64	1.0	4.0	$J		30	10	120	8.0	100	2.0mΔ	4.0Ø	15	20	100	30M$			PE	T063		A
25▼	DTS801	1.0	25	$J		500m	100m		5.0	800	500uΔ	5.0Ø	200m	20		1.5M$Δ			D	T03		CØ
26▼	DTS802	1.0	100	$J		5.0	2.0		5.0	1.0k	500uΔ	5.0Ø	3.5	2.2		1.5M$Δ			D	T03		CØ
27▼	DTS804	1.0	100	$J		5.0	2.0		5.0	1.0k	500uΔ	5.0Ø	3.5	2.2		1.5M$Δ			DΔ	T03		CØ
28▼	MJ8400	1.0	125 Ø	$J		4.0			5.0	600	1.0m$						666m	1.1u#Ø	Δ	T03		CØ
29▼	MJ9000	1.0	125 Ø	$J		10			5.0	325	1.0m$						666m	1.1u#Ø	Δ	T03		CØ
30▼	PT2944	1.0	6.0	$J		30	5.0	150	8.0	90	4.0m	2.0Ø	10	40	160	40M	70m	250n	PL	T063		H
31▼	PT5902	1.0	6.0	$J		30	5.0	125	6.0	120	10m#1	3.0Ø	10	7.0	100	40M	50m		PL	T063		H
32▼	PT5994	1.0	6.0	$J		50	10	120	8.0	100	10m	5.0Ø	30	50		100M	33m	300nØ	PL	T063		H
33▼	SDT7731	1.0	175			15	3.0	60	20	40	10u	5.0	5.0	20	80	5.0M			PL	T03		
34▼	SDT7732	1.0	175			15	3.0	80	20	60	10u	5.0	5.0	20	80	5.0M			PL	T03		
35▼	SDT7733	1.0	175			15	3.0	100	20	80	10u	5.0	5.0	20	80	5.0M			PL	T03		
36▼	SDT7734	1.0	175			15	3.0	120	20	100	10u	5.0	5.0	20	80	5.0M			PL	T03		
37▼	SDT7735	1.0	175			15	3.0	140	20	125	10u	5.0	5.0	20	80	5.0M			PL	T03		
38▼	SDT7736	1.0	175			15	3.0	165	20	150	10u	5.0	5.0	20	80	5.0M			PL	T03		
39▼	SDT7761	1.0	175			15	3.0	60	20	40	10u	5.0	5.0	20	80	5.0M			PL	T061		
40▼	SDT7762	1.0	175			15	3.0	80	20	60	10u	5.0	5.0	20	80	5.0M			PL	T061		
41▼	SDT7763	1.0	175			15	3.0	100	20	80	10u	5.0	5.0	20	80	5.0M			PL	T061		
42▼	SDT7764	1.0	175			15	3.0	120	20	100	10u	5.0	5.0	20	80	5.0M			PL	T061		
43▼	SDT7765	1.0	175			15	3.0	140	20	125	10u	5.0	5.0	20	80	5.0M			PL	T061		
44▼	SDT7766	1.0	175			15	3.0	165	20	150	10u	5.0	5.0	20	80	5.0M			PL	T061		
45▼	SDT8002	1.0 $	100 Ø	$J		20		80	8.0	60	100uØ	5.0Ø	10	40	120 #	20M$Δ			D	T063		Ø
46▼	SDT8003	1.0 $	100 Ø	$J		20		100	8.0	80	100uØ	5.0Ø	10	40	120 #	20M$Δ			D	T063		Ø
47▼	SDT8012	1.0 $	100 Ø	$J		20		80	8.0	60	10uØ	5.0Ø	10	20	60 #	25M$Δ			PL	T063		Ø
48▼	SDT8013	1.0 $	100 Ø	$J		20		100	8.0	80	10uØ	5.0Ø	10	20	60 #	25M$Δ			PL	T063		Ø
49▼	SDT8015	1.0 $	100 Ø	$J		20		80	8.0	60	10uØ	5.0Ø	10	40	120 #	25M$Δ			PL	T063		Ø
50▼	SDT8016	1.0 $	100 Ø	$J		20		100	8.0	80	10uØ	5.0Ø	10	40	120 #	25M$Δ			PL	T063		Ø
51▼	SDT8045	1.0 $	100 Ø	$J		20		40	5.0	25	10uØ	5.0Ø	10	40 #					PL	T063		AØ
52▼	SDT8070	1.0 $	100 Ø	$J		20		80	8.0	60	10uØ	5.0Ø	10	100 #		25M$Δ			PL	T063		AØ
53▼	SDT8071	1.0 $	100 Ø	$J		20		100	8.0	80	10uØ	5.0Ø	10	100 #		25M$Δ			PL	T063		AØ
54▼	SDT8151	1.0	175			20	4.0	150	8.0	120	100u	5.0	10	40	120	30M			PL			
55▼	SDT8152	1.0	175			20	4.0	100	8.0	80	100u	5.0	10	40	120	30M			PL			
56▼	SDT8153	1.0	175			20	4.0	80	8.0	60	100u	5.0	10	40	120	30M			PL			
57▼	SDT8154	1.0	175			20	4.0	100	8.0	80	100u	5.0	10	100		30M			PL			
58▼	SDT8155	1.0	175			20	4.0	80	8.0	60	100u	5.0	10	100		30M			PL			
59▼	SDT8156	1.0	175			20	4.0	150	8.0	120	100u	5.0	10	20	60	30M			PL			
60▼	SDT8157	1.0	175			20	4.0	100	8.0	80	100u	5.0	10	20	60	30M			PL			
61▼	SDT8158	1.0	175			20	4.0	80	8.0	60	100u	5.0	10	20	60	30M			PL			
62▼	SDT8159	1.0	175			20	4.0	40	5.0	25	100u	5.0	10	20		30M			PL			
63▼	SDT8301	1.0 $	100 Ø	$J		30		80	8.0	60	10uØ	5.0Ø	10	40	120 #	25M$Δ			PL	T063		AØ
64▼	SDT8302	1.0 $	100 Ø	$J		30		100	8.0	80	10uØ	5.0Ø	10	40	120 #	25M$Δ			PL	T063		AØ
65▼	SDT8303	1.0 $	100 Ø	$J		30		80	8.0	60	10uØ	5.0Ø	10	100 #		25M$Δ			PL	T063		AØ
66▼	SDT8304	1.0 $	100 Ø	$J		30		100	8.0	80	10uØ	5.0Ø	10	100 #		25M$Δ			PL	T063		AØ
67▼	SDT8751	1.0	175			20	4.0	120	8.0	100	10u	5.0	10	15	60	25M			PL	T063		
68▼	SDT8752	1.0	175			20	4.0	140	8.0	120	10u	5.0	10	15	60	25M			PL	T063		
69▼	SDT8753	1.0	175			20	4.0	170	8.0	150	10u	5.0	10	15	60	25M			PL	T063		
70▼	SDT8754	1.0	175			20	4.0	200	8.0	180	10u	5.0	10	15	60	25M			PL	T063		
71▼	SDT8755	1.0	175			20	4.0	120	8.0	100	10u	5.0	10	30	90	25M			PL	T063		
72▼	SDT8756	1.0	175			20	4.0	140	8.0	120	10u	5.0	10	30	90	25M			PL	T063		
73▼	SDT8757	1.0	175			20	4.0	170	8.0	150	10u	5.0	10	30	90	25M			PL	T063		
74▼	SDT8758	1.0	175			20	4.0	200	8.0	180	10u	5.0	10	30	90	25M			PL	T063		
75▼#	2SC1079	1.2	100	$J		12		150	5.0	110	100uØ	5.0Ø	2.0	40	240	3.0M$			DM	T03		CØ
76▼#	2SC1080	1.2	100	$J		12		110	5.0	110	100uØ	5.0Ø	2.0	40	240	3.0M$			DM	T03		CØ
77♦	153-04†	1.3	200 Ø	$J		7.5	3.0	65	25	40	10m#	4.0Ø	1.5	15			866m	3.0uØ		MT58		
78♦	153-05	1.3	200 Ø	$J		7.5	3.0	75	25	50	10m#	4.0Ø	1.5	30 Ø			870m	3.0uØ	FΔ	MT5z		
79♦	153-06†	1.3	200 Ø	$J		7.5	3.0	85	25	60	10m#	4.0Ø	1.5	15			866m	3.0uØ		MT58		
80♦	153-07	1.3	200 Ø	$J		7.5	3.0	95	25	70	10m#	4.0Ø	1.5	30 Ø			870m	3.0uØ	FΔ	MT5z		
81♦	153-08†	1.3	200 Ø	$J		7.5	3.0	105	25	80	10m#	4.0Ø	1.5	15			866m	3.0uØ		MT58		
82♦	153-09	1.3	200 Ø	$J		7.5	3.0	115	25	90	10m#	4.0Ø	1.5	30 Ø			870m	3.0uØ	FΔ	MT5z		
83♦	153-10†	1.3	200 Ø	$J		7.5	3.0	125	25	100	10m#	4.0Ø	1.5	15			866m	3.0uØ		MT58		
84♦	153-12†	1.3	200 Ø	$J		7.5	3.0	145	25	120	10m#	4.0Ø	1.5	15			866m	3.0uØ		MT58		
85♦	153-14†	1.3	200 Ø	$J		7.5	3.0	165	25	140	10m#	4.0Ø	1.5	15			866m	3.0uØ		MT58		
86♦	153-16†	1.3	200 Ø	$J		7.5	3.0	185	25	160	10m#	4.0Ø	1.5	15			866m	3.0uØ		MT58		
87♦	153-18†	1.3	200 Ø	$J		7.5	3.0	205	25	180	10m#	4.0Ø	1.5	15			866m	3.0uØ		MT58		
88♦	153-20†	1.3	200 Ø	$J		7.5	3.0	225	25	200	10m#	4.0Ø	1.5	15			866m	3.0uØ		MT58		
89♦	153-22†	1.3	200 Ø	$J		7.5	3.0	245	25	220	10m#	4.0Ø	1.5	15			866m	3.0uØ		MT58		
90♦	153-24†	1.3	200 Ø	$J		7.5	3.0	265	25	240	10m#	4.0Ø	1.5	15			866m	3.0uØ		MT58		
91♦	153-26†	1.3	200 Ø	$J		7.5	3.0	285	25	260	10m#	4.0Ø	1.5	15			866m	3.0uØ		MT58		
92♦	153-28†	1.3	200 Ø	$J		7.5	3.0	305	25	280	10m#	4.0Ø	1.5	15			866m	3.0uØ		MT58		
93♦	153-30†	1.3	200 Ø	$J		7.5	3.0	325	25	300	10m#	4.0Ø	1.5	15			866m	3.0uØ		MT58		
94♦	154-04†	1.3	200 Ø	$J		7.5	3.0	65	25	40	10m#	4.0Ø	1.5	25			833m	3.0uØ		MT58		
95▼	154-05	1.3	200 Ø	$J		7.5	3.0	75	25	50	10m#	4.0Ø	1.5	42 Ø			830m	3.0uØ	FΔ	MT52		
96♦	154-06†	1.3	200 Ø	$J		7.5	3.0	85	25	60	10m#	4.0Ø	1.5	25			833m	3.0uØ		MT58		
97♦	154-07	1.3	200 Ø	$J		7.5	3.0	95	25	70	10m#	4.0Ø	1.5	42 Ø			830m	3.0uØ	FΔ	MT5z		
98♦	154-08†	1.3	200 Ø	$J		7.5	3.0	105	25	80	10m#	4.0Ø	1.5	25			833m	3.0uØ		MT58		
99♦	154-09	1.3	200 Ø	$J		7.5	3.0	115	25	90	10m#	4.0Ø	1.5	42 Ø			830m	3.0uØ	FΔ	MT5z		
100♦	154-10†	1.3	200 Ø	$J		7.5	3.0	125	25	100	10m#	4.0Ø	1.5	25			833m	3.0uØ		MT58		
101♦	154-12†	1.3	200 Ø	$J		7.5	3.0	145	25	120	10m#	4.0Ø	1.5	25			833m	3.0uØ		MT58		
102♦	154-14†	1.3	200 Ø	$J		7.5	3.0	165	25	140	10m#	4.0Ø	1.5	25			833m	3.0uØ		MT58		
103♦	154-16†	1.3	200 Ø	$J		7.5	3.0	185	25	160	10m#	4.0Ø	1.5	25			833m	3.0uØ		MT58		
104♦	154-18†	1.3	200 Ø	$J		7.5	3.0	205	25	180	10m#	4.0Ø	1.5	25			833m	3.0uØ		MT58		
105♦	154-20†	1.3	200 Ø	$J		7.5	3.0	225	25	200	10m#	4.0Ø	1.5	25			833m	3.0uØ		MT58		
106♦	154-22†	1.3	200 Ø	$J		7.5	3.0	245	25	220	10m#	4.0Ø	1.5	25			833m	3.0uØ		MT58		
107♦	154-24†	1.3	200 Ø	$J		7.5	3.0	265	25	240	10m#	4.0Ø	1.5	25			833m	3.0uØ		MT58		
108♦	154-26†	1.3	200 Ø	$J		7.5	3.0	285	25	260	10m#	4.0Ø	1.5	25			833m	3.0uØ		MT58		
109♦	154-28†	1.3	200 Ø	$J		7.5	3.0	305	25	280	10m#	4.0Ø	1.5	25			833m	3.0uØ		MT58		
110♦	154-30†	1.3	200 Ø	$J		7.5	3.0	325	25	300	10m#	4.0Ø	1.5	25			833m	3.0uØ		MT58		

SYMBOLS AND CODES EXPLAINED IN INTERPRETER

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	[2] TYPE No.	[1] MAX. THERM RES. J to C (W)	MAX Pc FREE AIR @ 25°C (W)	M A X	T E M P	ABSOLUTE MAX. RATINGS @25°C Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	MAX. Icbo @ MAX Vcb @25°C (A)	hfe BIAS Vcb (V)	hfe BIAS Ic (A)	hfe MIN	hfe MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUC -TURE	DWG. No.	L E A D	C O D E
1▼	SDT2101	1.3			#J	150		10		5.0			150	40						MT41		
2▼	SDT2110	1.3			#J	150		10		5.0			150	40 Ø		450k§				MT41a		
3▼	SDT2111	1.3			#J	175		10		5.0			175	40 Ø		450k§				MT41a		
4▼	SDT2112	1.3			#J	200		10		5.0			200	40 Ø		450k§				MT41a		
5▼	SDT2150	1.3			#J	150		10		5.0			150	40 Ø		450k§				R121		
6▼	SDT2151	1.3			#J	175		10		5.0			175	40 Ø		450k§				R121		
7▼	SDT2152	1.3			#J	200		10		5.0			200	40 Ø		450k§				R121		
8♦	151-05	1.4	100 Ø		§J	6.0	3.0	75	25	50	10m#	4.0Ø	1.5	22 Ø			870m	7.0uØ☑	F△	MT1		
9♦	151-07	1.4	100 Ø		§J	6.0	3.0	95	25	70	10m#	4.0Ø	1.5	22 Ø			870m	7.0uØ☑	F△	MT1		
10♦	151-09	1.4	100 Ø		§J	6.0	3.0	115	25	90	10m#	4.0Ø	1.5	22 Ø			870m	7.0uØ☑	F△	MT1		
11♦	152-05	1.4	100 Ø		§J	6.0	3.0	75	25	50	10m#	4.0Ø	1.5	37 Ø			830m	7.0uØ☑	F△	MT1		
12♦	152-07	1.4	100 Ø		§J	6.0	3.0	95	25	70	10m#	4.0Ø	1.5	37 Ø			830m	7.0uØ☑	F△	MT1		
13♦	152-09	1.4	100 Ø		§J	6.0	3.0	115	25	90	10m#	4.0Ø	1.5	37 Ø			830m	7.0uØ☑	F△	MT1		
14♦	1776-0440†	1.4 §	150 Ø		§J	75 #	15 #	40	7.0	40 ☑	2.0m#	3.0Ø	40	15		20M§△	37m	500nØ☑	EM	TO63	A	
15♦	1776-0460†	1.4 §	150 Ø		§J	75 #	15 #	40	7.0	40 ☑	2.0m#	3.0Ø	60	15		20M§△	25m	600nØ☑	EM	TO63	A	
16♦	1776-0640†	1.4 §	150 Ø		§J	75 #	15 #	60	7.0	60 ☑	2.0m#	3.0Ø	40	15		20M§△	37m	500nØ☑	EM	TO63	A	
17♦	1776-0660†	1.4 §	150 Ø		§J	75 #	15 #	60	7.0	60 ☑	2.0m#	3.0Ø	60	15		20M§△	25m	600nØ☑	EM	TO63	A	
18♦	1776-0840†	1.4 §	150 Ø		§J	75 #	15 #	80	7.0	80 ☑	2.0m#	3.0Ø	40	15		20M§△	37m	500nØ☑	EM	TO63	A	
19♦	1776-0860†	1.4 §	150 Ø		§J	75 #	15 #	80	7.0	80 ☑	2.0m#	3.0Ø	60	15		20M§△	25m	600nØ☑	EM	TO63	A	
20♦	1776-1040†	1.4 §	150 Ø		§J	75 #	15 #	100	7.0	100 ☑	2.0m#	3.0Ø	40	15		20M§△	37m	500nØ☑	EM	TO63	A	
21♦	1776-1060†	1.4 §	150 Ø		§J	75 #	15 #	100	7.0	100 ☑	2.0m#	3.0Ø	60	15		20M§△	25m	600nØ☑	EM	TO63	A	
22♦	1776-1240†	1.4 §	150 Ø		§J	75 #	15 #	120	7.0	120 ☑	2.0m#	3.0Ø	40	15		20M§△	37m	500nØ☑	EM	TO63	A	
23♦	1776-1260†	1.4 §	150 Ø		§J	75 #	15 #	120	7.0	120 ☑	2.0m#	3.0Ø	60	15		20M§△	25m	600nØ☑	EM	TO63	A	
24♦	1776-1440†	1.4 §	150 Ø		§J	75 #	15 #	140	7.0	140 ☑	2.0m#	3.0Ø	40	15		20M§△	37m	500nØ☑	EM	TO63	A	
25♦	1776-1460†	1.4	150 Ø		§J	75 #	15 #	140	7.0	140 ☑	2.0m#	3.0Ø	60	15		20M§△	25m	600nØ☑	EM	TO63	A	
26♦	1776-1640†	1.4	150 Ø		§J	75 #	15 #	160	7.0	160 ☑	2.0m#	3.0Ø	40	15		20M§△	37m	500nØ☑	EM	TO63	A	
27▼	1776-1660†	1.4 §	150 Ø		§J	75 #	15 #	160	7.0	160 ☑	2.0m#	3.0Ø	60	15		20M§△	25m	600nØ☑	EM	TO63	A	
28▼	1776-1840†	1.4 §	150 Ø		§J	75 #	15 #	180	7.0	180 ☑	2.0m#	3.0Ø	40	15		20M§△	37m	500nØ☑	EM	TO63	A	
29▼	1776-1860†	1.4 §	150 Ø		§J	75 #	15 #	180	7.0	180 ☑	2.0m#	3.0Ø	60	15		20M§△	25m	600nØ☑	EM	TO63	A	
30▼	SDT2205	1.4	121 Ø		♦J	50	10	10	5.0	5.0	5.0m	1.0Ø	50	40 #	120 Ø	450k	3.0m		A	MT23		
31▼	SDT2305	1.4	121 Ø		♦J	50	10	10	5.0	5.0	5.0m	1.0Ø	50	40 #	120 Ø	450k	3.0m		A	TO36	CØ	
32▼	SDT1908	1.6	140 Ø		♦J	60	10	80	30	60	5.0m	2.0Ø	50	15		340k§	10m	10u	A	MT23		
33▼	SDT1909	1.6	140 Ø		♦J	60	10	60	30	45	5.0m	2.0Ø	50	15		340k§	10m	10u	A	MT23		
34▼	SDT1910	1.6	140 Ø		♦J	60	10	40	20	30	5.0m	2.0Ø	50	15		340k§	10m	10u	A	MT23		
35▼	SDT2008	1.6	140 Ø		♦J	60	10	80	30	60	5.0m	2.0Ø	50	15		340k§	10m	10u	A	MT22		
36▼	SDT2009	1.6	140 Ø		♦J	60	10	60	30	45	5.0m	2.0Ø	50	15		340k§	10m	10u	A	MT22		
37▼	SDT2010	1.6	140 Ø		♦J	60	10	40	20	30	5.0m	2.0Ø	50	15		340k§	10m	10u	A	MT22		
38▼	SDT8651	1.6	290			60	6.0	200	8.0	200	10u	10	40	10	40	15M			PL	TO68		
39▼	SDT8652	1.6	290			60	6.0	225	8.0	225	10u	10	40	10	40	15M			PL	TO68		
40▼	SDT8653	1.6	290			60	6.0	250	8.0	250	10u	10	40	10	40	15M			PL	TO68		
41▼	SDT8654	1.6	290			60	6.0	275	8.0	275	10u	10	40	10	40	15M			PL	TO68		
42▼	SDT8655	1.6	290			60	6.0	300	8.0	300	10u	10	40	10	40	15M			PL	TO68		
43♦	MJ7200	1.7	300 Ø		§J	60	20	100	6.0	80	100u	5.0Ø	20	20	100 #	20M§△			△	MT69a		
44♦	163-04†	2.0 §	200 Ø		§J	20	7.5	55	15	40	30m#	4.0Ø	5.0	15			220m	6.0uØ☑		MT33	AØ	
45♦	163-05	2.0 #	200 Ø		§J	20	7.5	65	15	50	30m#	4.0Ø	5.0	20 Ø			220m	6.0uØ	F△	MT33		
46♦	163-06†	2.0 §	200 Ø		§J	20	7.5	75	15	60	30m#	4.0Ø	5.0	15			220m	6.0uØ☑		MT33	AØ	
47♦	163-07	2.0 #	200 Ø		§J	20	7.5	85	15	70	30m#	4.0Ø	5.0	20 Ø			220m	6.0uØ	F△	MT33		
48♦	163-08†	2.0 §	200 Ø		§J	20	7.5	95	15	80	30m#	4.0Ø	5.0	15			220m	6.0uØ☑		MT33	AØ	
49♦	163-09	2.0 #	200 Ø		§J	20	7.5	105	15	90	30m#	4.0Ø	5.0	20 Ø			220m	6.0uØ	F△	MT33		
50♦	163-10†	2.0 §	200 Ø		§J	20	7.5	115	15	100	30m#	4.0Ø	5.0	15			220m	6.0uØ☑		MT33	AØ	
51♦	163-12†	2.0 §	200 Ø		§J	20	7.5	135	15	120	30m#	4.0Ø	5.0	15			220m	6.0uØ☑		MT33	AØ	
52♦	163-14†	2.0 §	200 Ø		§J	20	7.5	155	15	140	30m#	4.0Ø	5.0	15			220m	6.0uØ☑		MT33	AØ	
53♦	163-16†	2.0 §	200 Ø		§J	20	7.5	175	15	160	30m#	4.0Ø	5.0	15			220m	6.0uØ☑		MT33	AØ	
54♦	163-18†	2.0 §	200 Ø		§J	20	7.5	195	15	180	30m#	4.0Ø	5.0	15			220m	6.0uØ☑		MT33	AØ	
55♦	163-20†	2.0 §	200 Ø		§J	20	7.5	215	15	200	30m#	4.0Ø	5.0	15			220m	6.0uØ☑		MT33	AØ	
56♦	163-30†	2.0 §	200 Ø		§J	20	7.5	315	15	300	30m#	4.0Ø	5.0	15			220m	6.0uØ☑		MT33	AØ	
57♦	164-04†	2.0 §	200 Ø		§J	20	7.5	55	15	40	30m#	4.0Ø	5.0	25			200m	6.0uØ☑		MT33	AØ	
58♦	164-05	2.0 #	200 Ø		§J	20	7.5	65	15	50	30m#	4.0Ø	5.0	42 Ø			200m	6.0uØ	F△	MT33		
59♦	164-06†	2.0 §	200 Ø		§J	20	7.5	75	15	60	30m#	4.0Ø	5.0	25			200m	6.0uØ☑		MT33	AØ	
60♦	164-07	2.0 #	200 Ø		§J	20	7.5	85	15	70	30m#	4.0Ø	5.0	42 Ø			200m	6.0uØ	F△	MT33		
61♦	164-08†	2.0 §	200 Ø		§J	20	7.5	95	15	80	30m#	4.0Ø	5.0	25			200m	6.0uØ☑		MT33	AØ	
62♦	164-09	2.0 #	200 Ø		§J	20	7.5	105	15	90	30m#	4.0Ø	5.0	42 Ø			200m	6.0uØ	F△	MT33		
63♦	164-10†	2.0 §	200 Ø		§J	20	7.5	115	15	100	30m#	4.0Ø	5.0	25			200m	6.0uØ☑		MT33	AØ	
64♦	164-12†	2.0 §	200 Ø		§J	20	7.5	135	15	120	30m#	4.0Ø	5.0	25			200m	6.0uØ☑		MT33	AØ	
65♦	164-14†	2.0 §	200 Ø		§J	20	7.5	155	15	140	30m#	4.0Ø	5.0	25			200m	6.0uØ☑		MT33	AØ	
66♦	164-16†	2.0 §	200 Ø		§J	20	7.5	175	15	160	30m#	4.0Ø	5.0	25			200m	6.0uØ☑		MT33	AØ	
67♦	164-18†	2.0 §	200 Ø		§J	20	7.5	195	15	180	30m#	4.0Ø	5.0	25			200m	6.0uØ☑		MT33	AØ	
68♦	164-20†	2.0 §	200 Ø		§J	20	7.5	215	15	200	30m#	4.0Ø	5.0	25			200m	6.0uØ☑		MT33	AØ	
69♦	164-30†	2.0 §	200 Ø		§J	20	7.5	315	15	300	30m#	4.0Ø	5.0	25			200m	6.0uØ☑		MT33	AØ	
70▼	SDT1808	2.0	170 Ø		♦J	60	10	80	30	60	5.0m	2.0Ø	50	15		340k§	10m	10u	A	TO36	CØ	
71▼	SDT1809	2.0	170 Ø		♦J	60	10	60	30	45	5.0m	2.0Ø	50	15		340k§	10m	10u	A	TO36	CØ	
72▼	SDT1810	2.0	170 Ø		♦J	60	10	40	20	30	5.0m	2.0Ø	50	15		340k§	10m	10u	A	TO36	CØ	
73♦	2N1827†	2.1 ☑	250 Ø		§J	20	10	250	15	250 #	30m#	4.0Ø	20	10			75m	20uØ		TO49	C	
74♦	2N2127†	2.1 ☑	250 Ø		§J	20	10	250	15	250 #	30m#	4.0Ø	20	10			75m	20uØ		TO83	C	
75▼#	2SC1005	2.5	50		§J	5.0		1.1k	5.0	600	10uØ	15Ø	4.0	5.0	12 Ø	3.0M§			DM	TO3	CØ	
76▼#	2SC1005A	2.5	50		§J	5.0		1.4k	5.0	600	10uØ	15Ø	4.0	5.0	12 Ø	3.0M§			DM	TO3	CØ	
77▼	PT2920	3.3	4.0		§J	10	2.0	100	5.0	80	1.0uØ	5.0Ø	1.0	100	300	60M	250m	75n	PL	TO59	H	
78▼	PT2972	3.3	3.0		§J	5.0	1.0	100	8.0	100	100nØ	2.0Ø	1.0	40	120	50M	300m	80n	PL	TO59	G	
79▼	PT2986	3.3	4.0		§J	10	2.0	100	5.0	100	10uØ	5.0Ø	2.0	80	200	50M	500m		PL	TO59	H	
80▼	PT3986	15	1.5		§J	5.0	1.0	100	5.0	60	100n§Ø	1.0Ø	1.0	40		50M	250m		PL	TO5	H	
81▼	PT4992	15	1.5		§J	5.0	1.0	100	8.0	80	100n§Ø	2.0Ø	1.0	40	120	20M	500m	80n	PL	TO5	H	
82▼	PT5909	20	1.0		§J	10	2.0	100	6.0	80	1.0uØ	5.0Ø	1.0	100	300	50M	500m	75n	PL	TO5	A	
83▼	SDT4451	40M§	4.0 Ø		§J	5.0		80	8.0	40	1.0uØ	5.0Ø	1.0	20	60 #	20M§△			PL	TO5	AØ	
84▼	SDT4452	40M§	4.0 Ø		§J	5.0		100	8.0	80	1.0uØ	5.0Ø	1.0	20	60 #	20M§△			PL	TO5	AØ	
85▼	SDT4453	40M§	4.0 Ø		§J	5.0		80	8.0	40	1.0uØ	5.0Ø	1.0	40	120 #	20M§△			PL	TO5	AØ	
86▼	SDT4454	40M§	4.0 Ø		§J	5.0		100	8.0	80	1.0uØ	5.0Ø	1.0	40	120 #	20M§△			PL	TO5	AØ	

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	M A T	MAX. TEMP (°C)	DWG. No.	LEAD CODE
1▼	3N167		6.0n	8.0nØ	12nØ	9.0n	225m				20 §	35pśØ		PMOS	Si	150S	TO72	DM
2▼	3N168		6.0n	8.0nØ	12nØ	9.0n	225m				20 §	35pśØ		PMOS	Si	150S	TO72	DM
3▼	CMX740		50nØ†			75nØ†	400m				2.5 §			N§	Si	200J	TO46	DDØ
4♦	153-04		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	15 Δ	866m			N	Si	175J	MT58	
5♦	153-06		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	15 Δ	866m				Si	175J	MT58	
6♦	153-08		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	15 Δ	866m				Si	175J	MT58	
7♦	153-10		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	15 Δ	866m				Si	175J	MT58	
8♦	153-12		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	15 Δ	866m				Si	175J	MT58	
9♦	153-14		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	15 Δ	866m				Si	175J	MT58	
10♦	153-16		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	15 Δ	866m				Si	175J	MT58	
11♦	153-18		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	15 Δ	866m				Si	175J	MT58	
12♦	153-20		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	15 Δ	866m				Si	175J	MT58	
13♦	153-22		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	15 Δ	866m				Si	175J	MT58	
14♦	153-24		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	15 Δ	866m				Si	175J	MT58	
15♦	153-26		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	15 Δ	866m				Si	175J	MT58	
16♦	153-28		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	15 Δ	866m				Si	175J	MT58	
17♦	153-30		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	15 Δ	866m				Si	175J	MT58	
18♦	154-04		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	25 Δ	833m				Si	175J	MT58	
19♦	154-06		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	25 Δ	833m				Si	175J	MT58	
20♦	154-08		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	25 Δ	833m				Si	175J	MT58	
21♦	154-10		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	25 Δ	833m				Si	175J	MT58	
22♦	154-12		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	25 Δ	833m				Si	175J	MT58	
23♦	154-14		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	25 Δ	833m				Si	175J	MT58	
24♦	154-16		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	25 Δ	833m				Si	175J	MT58	
25♦	154-18		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	25 Δ	833m				Si	175J	MT58	
26♦	154-20		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	25 Δ	833m				Si	175J	MT58	
27♦	154-22		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	25 Δ	833m				Si	175J	MT58	
28♦	154-24		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	25 Δ	833m				Si	175J	MT58	
29♦	154-26		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	25 Δ	833m				Si	175J	MT58	
30♦	154-28		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	25 Δ	833m				Si	175J	MT58	
31♦	154-30		3.0uØ†			6.0uØ†	200 Ø	4.0 Ø	1.5 Ø	25 Δ	833m				Si	175J	MT58	
32♦	163-04		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	15 Δ	220m			N	Si	175J	MT33	AØ
33♦	163-06		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	15 Δ	200m			N	Si	175J	MT33	AØ
34♦	163-08		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	15 Δ	220m			N	Si	175J	MT33	AØ
35♦	163-10		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	15 Δ	220m			N	Si	175J	MT33	AØ
36♦	163-12		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	15 Δ	220m			N	Si	175J	MT33	AØ
37♦	163-14		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	15 Δ	220m			N	Si	175J	MT33	AØ
38♦	163-16		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	15 Δ	220m			N	Si	175J	MT33	AØ
39♦	163-18		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	15 Δ	220m			N	Si	175J	MT33	AØ
40♦	163-22		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	15 Δ	220m			N	Si	175J	MT33	AØ
41♦	163-24		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	15 Δ	220m			N	Si	175J	MT33	AØ
42♦	163-26		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	15 Δ	220m			N	Si	175J	MT33	AØ
43♦	163-28		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	15 Δ	220m			N	Si	175J	MT33	AØ
44♦	163-30		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	15 Δ	220m			N	Si	175J	MT33	AØ
45♦	164-04		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	25 Δ	200m			N	Si	175J	MT33	AØ
46♦	164-06		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	25 Δ	200m			N	Si	175J	MT33	AØ
47♦	164-08		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	25 Δ	200m			N	Si	175J	MT33	AØ
48♦	164-10		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	25 Δ	200m			N	Si	175J	MT33	AØ
49♦	164-12		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	25 Δ	200m			N	Si	175J	MT33	AØ
50♦	164-14		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	25 Δ	200m			N	Si	175J	MT33	AØ
51♦	164-16		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	25 Δ	200m			N	Si	175J	MT33	AØ
52♦	164-18		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	25 Δ	200m			N	Si	175J	MT33	AØ
53♦	164-20		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	25 Δ	200m			N	Si	175J	MT33	AØ
54♦	164-22		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	25 Δ	200m			N	Si	175J	MT33	AØ
55♦	164-24		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	25 Δ	200m			N	Si	175J	MT33	AØ
56♦	164-26		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	25 Δ	200m			N	Si	175J	MT33	AØ
57♦	164-28		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	25 Δ	200m			N	Si	175J	MT33	AØ
58♦	164-30		6.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	25 Δ	200m			N	Si	175J	MT33	AØ
59♦	2N1827		20uØ			25uØ	250 ØØ	4.0 Ø	20 Ø	10 Δ	75m			N	Si	175J	TO49	C
60♦	2N2127		20uØ			25uØ	250 ØØ	4.0 Ø	20 Ø	10 Δ	75m			N	Si	175J	TO83	C
61♦	163-20		66.0uØ			12uØ	200 Ø	4.0 Ø	5.0 Ø	15 Δ	220m			N	Si	175J	MT33	AØ
62▼#	BUY26	10kś	20u		3.0u	60u	100 Ø*	3.0 Ø	10 Ø	5.5	93m			N-A	Si	100J	MT76	Ø
63▼#	BUY27	10kś	20u		3.0u	60u	100 Ø*	3.0 Ø	10 Ø	5.5	93m			N-A	Si	100J	MT76	Ø
64▼#	BUY28	10kś	20u		3.0u	60u	100 Ø*	3.0 Ø	10 Ø	5.5	93m			N-A	Si	100J	MT76	Ø
65▼	MP5692	200kś△	20u		8.0u	15u	120 Ø	2.0 Ø	40 Ø	10 Δ#				P	Ge	110J	TO41	CØ
66▼	MP5693	200kś△	20u		8.0u	15u	120 Ø	2.0 Ø	40 Ø	10 Δ#				P	Ge	110J	TO41	CØ
67▼	MP5694	200kś△	20u		8.0u	15u	120 Ø	2.0 Ø	40 Ø	10 Δ#				P	Ge	110J	TO41	CØ
68▼	MP5695	200kś△	20u		8.0u	15u	120 Ø	2.0 Ø	40 Ø	10 Δ#				P	Ge	110J	TO41	CØ
69▼	MP5696	200kś△	20u		8.0u	15u	120 Ø	2.0 Ø	40 Ø	10 Δ#				P	Ge	110J	TO41	CØ
70♦	JAN2N3055	4.00MśΔ	6.0uØ			12uØ	117 Ø	4.0 Ø	4.0mØ	15 #Δ		700pØ		N	Si	200J	TO3	CØ
71▼	JAN2N5241	7.50MśØ	800nØ			1.7uØ	125 Ø	5.0 Ø	1.0 Ø	25 #Δ		300pØ		N	Si	200C	TO3	CØ
72♦	2N5660	20MśΔ	150nØ			850nØ	20 #	5.0 Ø	1.0 Ø	15 †Δ#		60pØ		N	Si	200J	TO66	AØ
73♦	2N5661	20MśΔ	150nØ			850nØ	20 #	5.0 Ø	1.0 Ø	15 †Δ#		60pØ		N	Si	200J	TO66	AØ
74♦	2N5662	20MśΔ	150nØ			850nØ	15 #	5.0 Ø	1.0 Ø	15 †Δ#		60pØ		N	Si	200J	TO5	AØ
75♦	2N5663	20MśΔ	150nØ			850nØ	15 #	5.0 Ø	1.0 Ø	15 †Δ#		60pØ		N	Si	200J	TO5	AØ
76♦	2N5664	20MśΔ	250nØ			1.5uØ	30 #	5.0 Ø	3.0 Ø	15 †Δ#		125pØ		N	Si	200J	TO66	AØ
77♦	2N5665	20MśΔ	250nØ			1.5uØ	30 #	5.0 Ø	3.0 Ø	15 †Δ#		125pØ		N	Si	200J	TO66	AØ
78♦	2N5666	20MśΔ	250nØ			1.5uØ	15 #	5.0 Ø	3.0 Ø	15 †Δ#		125pØ		N	Si	200J	TO5	AØ
79♦	2N5667	20MśΔ	250nØ			1.5uØ	15 #	5.0 Ø	3.0 Ø	15 †Δ#		125pØ		N	Si	200J	TO5	AØ
80▼	1776-0440	20MśΔ	500nØ		600n	350n	150 Ø§	3.0 Ø	40 Ø	15 Δ		1.6nØ		N-EM	Si	200J	TO63	A
81▼	1776-0640	20MśΔ	500nØ		600n	350n	150 Ø§	3.0 Ø	40 Ø	15 Δ		1.6nØ		N-EM	Si	200J	TO63	A
82▼	1776-0840	20MśΔ	500nØ		600n	350n	150 Ø§	3.0 Ø	40 Ø	15 Δ		1.6nØ		N-EM	Si	200J	TO63	A
83▼	1776-1040	20MśΔ	500nØ		600n	350n	150 Ø§	3.0 Ø	40 Ø	15 Δ		1.6nØ		N-EM	Si	200J	TO63	A
84▼	1776-1240	20MśΔ	500nØ		600n	350n	150 Ø§	3.0 Ø	40 Ø	15 Δ		1.6nØ		N-EM	Si	200J	TO63	A
85▼	1776-1440	20MśΔ	500nØ		600n	350n	150 Ø§	3.0 Ø	40 Ø	15 Δ		1.6nØ		N-EM	Si	200J	TO63	A
86▼	1776-1640	20MśΔ	500nØ		600n	350n	150 Ø§	3.0 Ø	40 Ø	15 Δ		1.6nØ		N-EM	Si	200J	TO63	A
87▼	1776-1840	20MśΔ	500nØ		600n	350n	150 Ø§	3.0 Ø	40 Ø	15 Δ		1.6nØ		N-EM	Si	200J	TO63	A
88▼	1776-0460	20MśΔ	600nØ		700n	450n	150 Ø§	3.0 Ø	60 Ø	15 Δ		1.6nØ		N-EM	Si	200J	TO63	A
89▼	1776-0660	20MśΔ	600nØ		700n	450n	150 Ø§	3.0 Ø	60 Ø	15 Δ		1.6nØ		N-EM	Si	200J	TO63	A
90▼	1776-0860	20MśΔ	600nØ		700n	450n	150 Ø§	3.0 Ø	60 Ø	15 Δ		1.6nØ		N-EM	Si	200J	TO63	A
91▼	1776-1060	20MśΔ	600nØ		700n	450n	150 Ø§	3.0 Ø	60 Ø	15 Δ		1.6nØ		N-EM	Si	200J	TO63	A
92▼	1776-1260	20MśΔ	600nØ		700n	450n	150 Ø§	3.0 Ø	60 Ø	15 Δ		1.6nØ		N-EM	Si	200J	TO63	A
93▼	1776-1460	20MśΔ	600nØ		700n	450n	150 Ø§	3.0 Ø	60 Ø	15 Δ		1.6nØ		N-EM	Si	200J	TO63	A
94▼	1776-1660	20MśΔ	600nØ		700n	450n	150 Ø§	3.0 Ø	60 Ø	15 Δ		1.6nØ		N-EM	Si	200J	TO63	A
95▼	1776-1860	20MśΔ	600nØ		700n	450n	150 Ø§	3.0 Ø	60 Ø	15 Δ		1.6nØ		N-EM	Si	200J	TO63	A
96▼	1843-2005	25MśΔ	500nØ†		1.5uŧ	1.0uŧ	85 Ø§	5.0 Ø	5.0 Ø	20 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
97▼	1843-2010	25MśΔ	500nØ†		1.5uŧ	1.0uŧ	85 Ø§	5.0 Ø	10 Ø	15 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
98▼	1843-2020	25MśΔ	500nØ†		1.5uŧ	1.0uŧ	85 Ø§	5.0 Ø	20 Ø	10 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
99▼	1843-2205	25MśΔ	500nØ†		1.5uŧ	1.0uŧ	85 Ø§	5.0 Ø	5.0 Ø	20 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
100▼	1843-2210	25MśΔ	500nØ†		1.5uŧ	1.0uŧ	85 Ø§	5.0 Ø	10 Ø	15 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
101▼	1843-2220	25MśΔ	500nØ†		1.5uŧ	1.0uŧ	85 Ø§	5.0 Ø	20 Ø	10 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
102▼	1843-2505	25MśΔ	500nØ†		1.5uŧ	1.0uŧ	85 Ø§	5.0 Ø	5.0 Ø	20 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
103▼	1843-2510	25MśΔ	500nØ†		1.5uŧ	1.0uŧ	85 Ø§	5.0 Ø	10 Ø	15 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
104▼	1843-2520	25MśΔ	500nØ†		1.5uŧ	1.0uŧ	85 Ø§	5.0 Ø	20 Ø	10 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
105▼	1843-2705	25MśΔ	500nØ†		1.5uŧ	1.0uŧ	85 Ø§	5.0 Ø	5.0 Ø	20 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
106▼	1843-2710	25MśΔ	500nØ†		1.5uŧ	1.0uŧ	85 Ø§	5.0 Ø	10 Ø	15 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
107▼	1843-2720	25MśΔ	500nØ†		1.5uŧ	1.0uŧ	85 Ø§	5.0 Ø	20 Ø	10 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
108▼	1843-3005	25MśΔ	500nØ†		1.5uŧ	1.0uŧ	85 Ø§	5.0 Ø	5.0 Ø	20 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
109▼	1843-3010	25MśΔ	500nØ†		1.5uŧ	1.0uŧ	85 Ø§	5.0 Ø	10 Ø	15 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
110▼	1843-3020	25MśΔ	500nØ†		1.5uŧ	1.0uŧ	85 Ø§	5.0 Ø	20 Ø	10 #Δ		600pØ		N-EM	Si	200J	TO3	CØ

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	3 TYPE No.	1 fab (Hz)	2 MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	DESCRIPTION M A T	DESCRIPTION MAX. TEMP (°C)	DWG. No.	LEAD CODE
1▼	1843-3205	25M§Δ	500nØ†		1.5u†	1.0u†	85 Ø§	5.0 Ø	5.0 Ø	20 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
2▼	1843-3210	25M§Δ	500nØ†		1.5u†	1.0u†	85 Ø§	5.0 Ø	10 Ø	15 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
3▼	1843-3220	25M§Δ	500nØ†		1.5u†	1.0u†	85 Ø§	5.0 Ø	20 Ø	10 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
4▼	1843-3505	25M§Δ	500nØ†		1.5u†	1.0u†	85 Ø§	5.0 Ø	5.0 Ø	20 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
5▼	1843-3510	25M§Δ	500nØ†		1.5u†	1.0u†	85 Ø§	5.0 Ø	10 Ø	15 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
6▼	1843-3520	25M§Δ	500nØ†		1.5u†	1.0u†	85 Ø§	5.0 Ø	20 Ø	10 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
7▼	1843-3705	25M§Δ	500nØ†		1.5u†	1.0u†	85 Ø§	5.0 Ø	5.0 Ø	20 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
8▼	1843-3710	25M§Δ	500nØ†		1.5u†	1.0u†	85 Ø§	5.0 Ø	10 Ø	15 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
9▼	1843-3720	25M§Δ	500nØ†		1.5u†	1.0u†	85 Ø§	5.0 Ø	20 Ø	10 #Δ		600pØ		N-EM	Si	200J	TO3	CØ
10♦	2N2877	30M§Δ	120n		60n	80n	30 §Ø	2.0 Ø	10mØ	15 Δ		150pØ		N	Si	200J	TO111	AØ
11♦	2N2879	30M§Δ	120n		60n	80n	30 §Ø	2.0 Ø	10mØ	15 Δ		150pØ		N	Si	200J	TO111	AØ
12▼	1743-0610	30M§Δ	300nØ		500n	300n	150 Ø	2.0 Ø	10 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
13▼	1743-0810	30M§Δ	300nØ		500n	300n	150 Ø	2.0 Ø	10 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
14▼	1743-1010	30M§Δ	300nØ		500n	300n	150 Ø	2.0 Ø	10 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
15▼	1743-1210	30M§Δ	300nØ		500n	300n	150 Ø	2.0 Ø	10 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
16▼	1743-1410	30M§Δ	300nØ		500n	300n	150 Ø	2.0 Ø	10 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
17▼	1743-1610	30M§Δ	300nØ		500n	300n	150 Ø	2.0 Ø	10 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
18▼	1743-1810	30M§Δ	300nØ		500n	300n	150 Ø	2.0 Ø	10 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
19▼	1748-0610	30M§Δ	300nØ		500n	300n	175 Ø	2.0 Ø	10 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
20▼	1748-0810	30M§Δ	300nØ		500n	300n	175 Ø	2.0 Ø	10 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
21▼	1748-1010	30M§Δ	300nØ		500n	300n	175 Ø	2.0 Ø	10 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
22▼	1748-1210	30M§Δ	300nØ		500n	300n	175 Ø	2.0 Ø	10 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
23▼	1748-1410	30M§Δ	300nØ		500n	300n	175 Ø	2.0 Ø	10 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
24▼	1748-1610	30M§Δ	300nØ		500n	300n	175 Ø	2.0 Ø	10 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
25▼	1748-1810	30M§Δ	300nØ		500n	300n	175 Ø	2.0 Ø	10 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
26▼	1743-0620	30M§Δ	450nØ		550n	350n	150 Ø	2.5 Ø	20 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
27▼	1743-0820	30M§Δ	450nØ		550n	350n	150 Ø	2.5 Ø	20 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
28▼	1743-1020	30M§Δ	450nØ		550n	350n	150 Ø	2.5 Ø	20 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
29▼	1743-1220	30M§Δ	450nØ		550n	350n	150 Ø	2.5 Ø	20 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
30▼	1743-1420	30M§Δ	450nØ		550n	350n	150 Ø	2.5 Ø	20 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
31▼	1743-1620	30M§Δ	450nØ		550n	350n	150 Ø	2.5 Ø	20 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
32▼	1743-1820	30M§Δ	450nØ		550n	350n	150 Ø	2.5 Ø	20 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
33▼	1748-0820	30M§Δ	450nØ		550n	350n	175 Ø	2.5 Ø	20 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
34▼	1748-1020	30M§Δ	450nØ		550n	350n	175 Ø	2.5 Ø	20 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
35▼	1748-1220	30M§Δ	450nØ		550n	350n	175 Ø	2.5 Ø	20 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
36▼	1748-1420	30M§Δ	450nØ		550n	350n	175 Ø	2.5 Ø	20 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
37▼	1748-1620	30M§Δ	450nØ		550n	350n	175 Ø	2.5 Ø	20 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
38▼	1748-1820	30M§Δ	450nØ		550n	350n	175 Ø	2.5 Ø	20 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
39▼	1743-0630	30M§Δ	500nØ		600n	400n	150 Ø	3.0 Ø	30 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
40▼	1743-0830	30M§Δ	500nØ		600n	400n	150 Ø	3.0 Ø	30 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
41▼	1743-1030	30M§Δ	500nØ		600n	400n	150 Ø	3.0 Ø	30 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
42▼	1743-1230	30M§Δ	500nØ		600n	400n	150 Ø	3.0 Ø	30 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
43▼	1743-1430	30M§Δ	500nØ		600n	400n	150 Ø	3.0 Ø	30 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
44▼	1743-1630	30M§Δ	500nØ		600n	400n	150 Ø	3.0 Ø	30 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
45▼	1743-1830	30M§Δ	500nØ		600n	400n	150 Ø	3.0 Ø	30 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO3	CØ
46▼	1748-0630	30M§Δ	500nØ		600n	400n	175 Ø	3.0 Ø	30 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
47▼	1748-0830	30M§Δ	500nØ		600n	400n	175 Ø	3.0 Ø	30 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
48▼	1748-1030	30M§Δ	500nØ		600n	400n	175 Ø	3.0 Ø	30 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
49▼	1748-1230	30M§Δ	500nØ		600n	400n	175 Ø	3.0 Ø	30 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
50▼	1748-1430	30M§Δ	500nØ		600n	400n	175 Ø	3.0 Ø	30 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
51▼	1748-1630	30M§Δ	500nØ		600n	400n	175 Ø	3.0 Ø	30 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
52▼	1748-1830	30M§Δ	500nØ		600n	400n	175 Ø	3.0 Ø	30 Ø	20 Δ#		800pØ		N-EM	Si	200J	TO63	A
53▼	D43C1	40M§	50nt Ø		500nt	50nt	1.7 #	1.0 Ø	1.0 Ø	10 Δ	500m	125pØ		Pt	Si	150J	X51	A
54▼	D43C2	40M§	50nt Ø		500nt	50nt	1.7 #	1.0 Ø	1.0 Ø	20 Δ	500m	125pØ		Pt	Si	150J	X51	A
55▼	D43C3	40M§	50nt Ø		500nt	50nt	1.7 #	1.0 Ø	2.0 Ø	20 Δ	500m	125pØ		Pt	Si	150J	X51	A
56▼	D43C4	40M§	50nt Ø		500nt	50nt	1.7 #	1.0 Ø	1.0 Ø	10 Δ	500m	125pØ		Pt	Si	150J	X51	A
57▼	D43C5	40M§	50nt Ø		500nt	50nt	1.7 #	1.0 Ø	1.0 Ø	20 Δ	500m	125pØ		Pt	Si	150J	X51	A
58▼	D43C7	40M§	50nt Ø		500nt	50nt	1.7 #	1.0 Ø	1.0 Ø	10 Δ	500m	125pØ		Pt	Si	150J	X51	A
59▼	D43C8	40M§	50nt Ø		500nt	50nt	1.7 #	1.0 Ø	1.0 Ø	20 Δ	500m	125pØ		Pt	Si	150J	X51	A
60▼	1714-0402	40M§Δ	300nØ		600n	300n	35 Ø	2.0 Ø	2.0 Ø	20 Δ	300m	250pØ		N-EM	Si	200J	TO66	
61▼	1714-0602	40M§Δ	300nØ		600n	300n	35 Ø	2.0 Ø	2.0 Ø	20 Δ	300m	250pØ		N-EM	Si	200J	TO66	
62▼	1714-0802	40M§Δ	300nØ		600n	300n	35 Ø	2.0 Ø	2.0 Ø	20 Δ	300m	250pØ		N-EM	Si	200J	TO66	
63▼	1714-1002	40M§Δ	300nØ		600n	300n	35 Ø	2.0 Ø	2.0 Ø	20 Δ	300m	250pØ		N-EM	Si	200J	TO66	
64▼	1714-1202	40M§Δ	300nØ		600n	300n	35 Ø	2.0 Ø	2.0 Ø	20 Δ	300m	250pØ		N-EM	Si	200J	TO66	
65▼	1714-1402	40M§Δ	300nØ		600n	300n	35 Ø	2.0 Ø	2.0 Ø	20 Δ	300m	250pØ		N-EM	Si	200J	TO66	
66▼	1714-1602	40M§Δ	300nØ		600n	300n	35 Ø	2.0 Ø	2.0 Ø	20 Δ	300m	250pØ		N-EM	Si	200J	TO66	
67▼	1714-1802	40M§Δ	300nØ		600n	300n	35 Ø	2.0 Ø	2.0 Ø	20 Δ	300m	250pØ		N-EM	Si	200J	TO66	
68▼	1716-0402	40M§Δ	300nØ		600n	300n	50 Ø§	2.0 Ø	2.0 Ø	20 Δ	250m	250pØ		N-EM	Si	200J	TO61	A
69▼	1716-0602	40M§Δ	300nØ		600n	300n	50 Ø§	2.0 Ø	2.0 Ø	20 Δ	250m	250pØ		N-EM	Si	200J	TO61	A
70▼	1716-0802	40M§Δ	300nØ		600n	300n	50 Ø§	2.0 Ø	2.0 Ø	20 Δ	250m	250pØ		N-EM	Si	200J	TO61	A
71▼	1716-1002	40M§Δ	300nØ		600n	300n	50 Ø§	2.0 Ø	2.0 Ø	20 Δ	250m	250pØ		N-EM	Si	200J	TO61	A
72▼	1716-1202	40M§Δ	300nØ		600n	300n	50 Ø§	2.0 Ø	2.0 Ø	20 Δ	250m	250pØ		N-EM	Si	200J	TO61	A
73▼	1716-1402	40M§Δ	300nØ		600n	300n	50 Ø§	2.0 Ø	2.0 Ø	20 Δ	250m	250pØ		N-EM	Si	200J	TO61	A
74▼	1716-1602	40M§Δ	300nØ		600n	300n	50 Ø§	2.0 Ø	2.0 Ø	20 Δ	250m	250pØ		N-EM	Si	200J	TO61	A
75▼	1716-1802	40M§Δ	300nØ		600n	300n	50 Ø§	2.0 Ø	2.0 Ø	20 Δ	250m	250pØ		N-EM	Si	200J	TO61	A
76▼	1718-0402	40M§Δ	300nØ		600n	300n	33 Ø§	2.0 Ø	2.0 Ø	20 Δ	250m	250pØ		N-EM	Si	200J	TO111	G
77▼	1718-0602	40M§Δ	300nØ		600n	300n	33 Ø§	2.0 Ø	2.0 Ø	20 Δ	250m	250pØ		N-EM	Si	200J	TO111	G
78▼	1718-0802	40M§Δ	300nØ		600n	300n	33 Ø§	2.0 Ø	2.0 Ø	20 Δ	250m	250pØ		N-EM	Si	200J	TO111	G
79▼	1718-1002	40M§Δ	300nØ		600n	300n	33 Ø§	2.0 Ø	2.0 Ø	20 Δ	250m	250pØ		N-EM	Si	200J	TO111	G
80▼	1718-1202	40M§Δ	300nØ		600n	300n	33 Ø§	2.0 Ø	2.0 Ø	20 Δ	250m	250pØ		N-EM	Si	200J	TO111	G
81▼	1718-1402	40M§Δ	300nØ		600n	300n	33 Ø§	2.0 Ø	2.0 Ø	20 Δ	250m	250pØ		N-EM	Si	200J	TO111	G
82▼	1718-1602	40M§Δ	300nØ		600n	300n	33 Ø§	2.0 Ø	2.0 Ø	20 Δ	250m	250pØ		N-EM	Si	200J	TO111	G
83▼	1718-1802	40M§Δ	300nØ		600n	300n	33 Ø§	2.0 Ø	2.0 Ø	20 Δ	250m	250pØ		N-EM	Si	200J	TO111	G
84▼	1714-0405	40M§Δ	400nØ		600n	300n	35 Ø	2.0 Ø	5.0 Ø	20 Δ	150m	250pØ		N-EM	Si	200J	TO66	
85▼	1714-0605	40M§Δ	400nØ		600n	300n	35 Ø	2.0 Ø	5.0 Ø	20 Δ	150m	250pØ		N-EM	Si	200J	TO66	
86▼	1714-0805	40M§Δ	400nØ		600n	300n	35 Ø	2.0 Ø	5.0 Ø	20 Δ	150m	250pØ		N-EM	Si	200J	TO66	
87▼	1714-1005	40M§Δ	400nØ		600n	300n	35 Ø	2.0 Ø	5.0 Ø	20 Δ	150m	250pØ		N-EM	Si	200J	TO66	
88▼	1714-1205	40M§Δ	400nØ		600n	300n	35 Ø	2.0 Ø	5.0 Ø	20 Δ	150m	250pØ		N-EM	Si	200J	TO66	
89▼	1714-1405	40M§Δ	400nØ		600n	300n	35 Ø	2.0 Ø	5.0 Ø	20 Δ	150m	250pØ		N-EM	Si	200J	TO66	
90▼	1714-1605	40M§Δ	400nØ		600n	300n	35 Ø	2.0 Ø	5.0 Ø	20 Δ	150m	250pØ		N-EM	Si	200J	TO66	
91▼	1714-1805	40M§Δ	400nØ		600n	300n	35 Ø	2.0 Ø	5.0 Ø	20 Δ	150m	250pØ		N-EM	Si	200J	TO66	
92▼	1716-0405	40M§Δ	400nØ		600n	300n	50 Ø§	2.0 Ø	5.0 Ø	20 Δ	120m	250pØ		N-EM	Si	200J	TO61	A
93▼	1716-0605	40M§Δ	400nØ		600n	300n	50 Ø§	2.0 Ø	5.0 Ø	20 Δ	120m	250pØ		N-EM	Si	200J	TO61	A
94▼	1716-0805	40M§Δ	400nØ		600n	300n	50 Ø§	2.0 Ø	5.0 Ø	20 Δ	120m	250pØ		N-EM	Si	200J	TO61	A
95▼	1716-1005	40M§Δ	400nØ		600n	300n	50 Ø§	2.0 Ø	5.0 Ø	20 Δ	120m	250pØ		N-EM	Si	200J	TO61	A
96▼	1716-1205	40M§Δ	400nØ		600n	300n	50 Ø§	2.0 Ø	5.0 Ø	20 Δ	120m	250pØ		N-EM	Si	200J	TO61	A
97▼	1716-1405	40M§Δ	400nØ		600n	300n	50 Ø§	2.0 Ø	5.0 Ø	20 Δ	120m	250pØ		N-EM	Si	200J	TO61	A
98▼	1716-1605	40M§Δ	400nØ		600n	300n	50 Ø§	2.0 Ø	5.0 Ø	20 Δ	120m	250pØ		N-EM	Si	200J	TO61	A
99▼	1716-1805	40M§Δ	400nØ		600n	300n	50 Ø§	2.0 Ø	5.0 Ø	20 Δ	120m	250pØ		N-EM	Si	200J	TO61	A
100▼	1718-0405	40M§Δ	400nØ		600n	300n	33 Ø§	2.0 Ø	5.0 Ø	20 Δ	120m	250pØ		N-EM	Si	200J	TO111	G
101▼	1718-0605	40M§Δ	400nØ		600n	300n	33 Ø§	2.0 Ø	5.0 Ø	20 Δ	120m	250pØ		N-EM	Si	200J	TO111	G
102▼	1718-0805	40M§Δ	400nØ		600n	300n	33 Ø§	2.0 Ø	5.0 Ø	20 Δ	120m	250pØ		N-EM	Si	200J	TO111	G
103▼	1718-1005	40M§Δ	400nØ		600n	300n	33 Ø§	2.0 Ø	5.0 Ø	20 Δ	120m	250pØ		N-EM	Si	200J	TO111	G
104▼	1718-1205	40M§Δ	400nØ		600n	300n	33 Ø§	2.0 Ø	5.0 Ø	20 Δ	120m	250pØ		N-EM	Si	200J	TO111	G
105▼	1718-1405	40M§Δ	400nØ		600n	300n	33 Ø§	2.0 Ø	5.0 Ø	20 Δ	120m	250pØ		N-EM	Si	200J	TO111	G
106▼	1718-1605	40M§Δ	400nØ		600n	300n	33 Ø§	2.0 Ø	5.0 Ø	20 Δ	120m	250pØ		N-EM	Si	200J	TO111	G
107▼	1718-1805	40M§Δ	400nØ		600n	300n	33 Ø§	2.0 Ø	5.0 Ø	20 Δ	120m	250pØ		N-EM	Si	200J	TO111	G
108♦	2N2878	50M§Δ	80n		60n	80n	30 §Ø	2.0 Ø	10mØ	30 Δ		150pØ		N	Si	200J	TO111	AØ
109♦	2N2880	50M§Δ	80n		60n	80n	30 §Ø	2.0 Ø	10mØ	30 Δ		150pØ		N	Si	200J	TO111	AØ
110▼	D42C1	50M§	100nt Ø		500nt	75nt	1.7 #	1.0 Ø	1.0 Ø	10 Δ	500m	100pØ		Nt	Si	150J	X51	A

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	[3] TYPE No.	[1] fab (Hz)	[2] MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS Vcb (V)	BIAS Ie (A)	hfe	MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION STRUCTURE P-PNP N-NPN	M A T	MAX. TEMP (°C)	DWG. No.	LEAD CONFIG
1▼	D42C2	50M§	100nt∅		500nt	75nt	1.7 #	1.0 ∅	1.0 ∅	20 Δ	500m	100p∅		Nt	Si	150J	X51	A
2▼	D42C3	50M§	100nt∅		500nt	75nt	1.7 #	1.0 ∅	2.0 ∅	20 Δ	500m	100p∅		Nt	Si	150J	X51	A
3▼	D42C4	50M§	100nt∅		500nt	75nt	1.7 #	1.0 ∅	1.0 ∅	10 Δ	500m	100p∅		Nt	Si	150J	X51	A
4▼	D42C5	50M§	100nt∅		500nt	75nt	1.7 #	1.0 ∅	1.0 ∅	20 Δ	500m	100p∅		Nt	Si	150J	X51	A
5▼	D42C7	50M§	100nt∅		500nt	75nt	1.7 #	1.0 ∅	1.0 ∅	10 Δ	500m	100p∅		Nt	Si	150J	X51	A
6▼	D42C8	50M§	100nt∅		500nt	75nt	1.7 #	1.0 ∅	1.0 ∅	20 Δ	500m	100p∅		Nt	Si	150J	X51	A
7▼#	BC160	50M§Δ	500n∅			650n∅	3.2	1.0 ∅	100m∅	63	1.0	30p∅		P-D	Si	175J	TO39	A∅
8▼#	BC161	50M§Δ	500n∅			650n∅	3.2	1.0 ∅	100m∅	63	1.0	30p∅		P-D	Si	175J	TO39	A∅
9▼#	BSV15	50M§Δ	500n∅		500n	150n	3.2 ∅	1.0 ∅	100m∅	63 *	2.0	20p$		P-PE	Si	175J	TO39	A∅
10▼#	BSV16	50M§Δ	500n∅		500n	150n	3.2 ∅	1.0 ∅	100m∅	63 *	2.0	20p$		P-PE	Si	175J	TO39	A∅
11▼	JAN2N2812	70.0M§∅	350n∅		1.0u	200n	50 ∅$	5.0 ∅	1.0 ∅	50 #Δ		350p∅		N	Si	200C	TO61	A∅
12▼	JAN2N2814	70.0M§∅	350n∅		1.0u	200n	50 ∅$	5.0 ∅	1.0 ∅	50 #Δ		350p∅		N	Si	200C	TO61	A∅
13▼#	BSW65	80M§	500n∅			1.0u∅	5.0 ∅	5.0	100m	40 Δ	1.5	35p$		N-PE	Si	200J	TO5	A∅
14♦	TP4257	100M§Δ			15n∅		200m	300m∅	10m∅	30 Δ		3.0p$∅		P-PL	Si		X93	A
15♦	TP4258	100M§Δ			20n∅		200m	300m∅	10m∅	30 Δ		3.0p$∅		P-PL	Si		X93	A
16▼#	BSV64	100M§	600n∅			1.2u∅	2.0 ∅$	2.0 ∅	2.0 ∅	40 Δ	200m	80p$		N-PE	Si	200J	TO39	A∅
17▼#	BDY60	100M§	150ut	10ut	200ut	80ut	15 ∅$	10 ∅	500m∅	45	140m	35p$		N-PE	Si	175J	TO3	C∅
18▼#	BDY61	100M§	150ut	10ut	200ut	80ut	15 ∅$	10 ∅	500m∅	45	180m	35p$		N-PE	Si	175J	TO3	C∅
19▼#	BDY62	100M§	150ut	10ut	200ut	80ut	15 ∅$	10 ∅	500m∅	45	180m	35p$		N-PE	Si	175J	TO3	C∅
20♦	2N2048A	150M§Δ	20n	15n	120n	25n	150m	300m∅	10m∅	50 Δ	4.0	3.0p∅		P	Ge	100S	TO9	A
21▼	D41D1	150M§	50nt∅		75nt	40nt	1.0 #	2.0 ∅	1.0 ∅	10 Δ	1.0	10p		Pt	Si	150S	X51	A
22▼	D41D2	150M§	50nt∅		75nt	40nt	1.0 #	2.0 ∅	1.0 ∅	20 Δ	1.0	10p		Pt	Si	150S	X51	A
23▼	D41D4	150M§	50nt∅		75nt	40nt	1.0 #	2.0 ∅	1.0 ∅	10 Δ	1.0	10p		Pt	Si	150S	X51	A
24▼	D41D5	150M§	50nt∅		75nt	40nt	1.0 #	2.0 ∅	1.0 ∅	20 Δ	1.0	10p		Pt	Si	150S	X51	A
25▼	D41D7	150M§	50nt∅		75nt	40nt	1.0 #	2.0 ∅	1.0 ∅	10 Δ	2.0	10p		Pt	Si	150S	X51	A
26▼	D41D8	150M§	50nt∅		75nt	40nt	1.0 #	2.0 ∅	1.0 ∅	20 Δ	2.0	10p		Pt	Si	150S	X51	A
27▼#	2SA608	180M§	110n		70n	80n	100m	1.0 ∅	10m∅	100		12p		P-PE	Si	125J	R145	D
28▼#	ZTX310	200M§Δ			60n		300m	10 ∅	10m∅	20 Δ	90	6.0p∅		N-PL	Si	125A	X59	F
29▼#	ZTX311	200M§Δ			25n		300m	350m∅	10m∅	30 Δ	90	6.0p∅		N-PL	Si	125A	X59	F
30▼	D40D1	200M§	25nt∅		200nt	50nt	1.0 #	2.0 ∅	1.0 ∅	10 Δ	1.0	8.0p		Nt	Si	150S	X51	A
31▼	D40D2	200M§	25nt∅		200nt	50nt	1.0 #	2.0 ∅	1.0 ∅	20 Δ	1.0	8.0p		Nt	Si	150S	X51	A
32▼	D40D3	200M§	25nt∅		200nt	50nt	1.0 #	2.0 ∅	1.0 ∅	10 Δ		8.0p		Nt	Si	150S	X51	A
33▼	D40D4	200M§	25nt∅		200nt	50nt	1.0 #	2.0 ∅	1.0 ∅	10 Δ	1.0	8.0p		Nt	Si	150S	X51	A
34▼	D40D5	200M§	25nt∅		200nt	50nt	1.0 #	2.0 ∅	1.0 ∅	10 Δ	1.0	8.0p		Nt	Si	150S	X51	A
35▼	D40D7	200M§	25nt∅		200nt	50nt	1.0 #	2.0 ∅	1.0 ∅	10 Δ	2.0	8.0p		Nt	Si	150S	X51	A
36▼	D40D8	200M§	25nt∅		200nt	50nt	1.0 #	2.0 ∅	1.0 ∅	10 Δ	2.0	8.0p		Nt	Si	150S	X51	A
37♦	LDS208	200M§	30n			225n	360m	10 ∅	10m∅	70 Δ	4.0	8.0p∅		N	Si	150J	TO122	P
38▼	2N5735	200M§Δ	35n	25n	300n	25n	360m	10 ∅	150m∅	40 Δ#		8.0p$∅		N	Si	150S	TO122	P
39▼	2N5736	200M§Δ	35n	25n	300n	25n	360m	10 ∅	150m∅	100 Δ#		8.0p$∅		N	Si	150S	TO122	P
40▼#	2SC715	200M§	70n		170n	60n	125m	6.0 ∅	1.0m∅	80		3.0p		N-PE	Si	125J	R145	D
41▼#	2SC716	200M§	70n		170n	60n	125m	6.0 ∅	1.0m∅	80		3.0p		N-PE	Si	125J	R145	D
42♦	2N2218A	250M§Δ	25n	10n	225n	60n	800m	10 ∅	10m∅	50 Δ		8.0p∅		N∅	Si	175J	TO5	A∅
43▼#	BC194	250M§Δ	25n∅			150n∅	100m*	10 ∅	1.0m∅	25 †Δ		8.0p$		N-PE	Si	125J	u30b	D
44▼#	BSW13	280M§Δ	20n∅		20n	40n∅	160m	350m∅	10m∅	300 †∅	30	5.0p∅		NPE	Si	125J	u32	
45▼#	V763	300M§		140u∅		300u∅	400m	1.0 ∅	50m∅	100		6.0p		P-PL	Si	200	TO18	A
46♦	CS3605	300M§Δ	35n∅		20n	45n∅	500m∅	1.0 ∅	10m∅	30 Δ	25	6.0p∅		N-DPL	Si	150J	R97	A
47♦	2N1708A	300M§Δ	40n∅		25n	75n∅	1.0 ∅	1.0 ∅	10m∅	120 †∅	22	6.0p∅		N	Si	175J	TO46	A∅
48♦	CS3606	300M§Δ	40n∅		35n	60n∅	500m∅	1.0 ∅	10m∅	30 Δ	25	6.0p∅		N-DPL	Si	150J	R97	A
49♦	CS3607	300M§Δ	45n∅		45n	70n∅	500m∅	1.0 ∅	10m∅	30 Δ	25	6.0p∅		N-DPL	Si	150J	R97	A
50▼	2N779	320M§Δ	18n			18n	60m	500m∅	10m∅	200 ∅	4.4	2.5p∅		P	Ge	100S	TO18	A
51▼#	C722	350M§		35nt∅		240u∅†	360m	1.0 ∅	10m∅	120		3.0p		N-PE	Si	200	TO18	A
52▼	MMT3014	350M§Δ	16n∅	18n$		25n∅	225m	400m∅	30m∅	200 ∅#	7.3	5.0p∅		N-AN	Si	135J	u43	D
53▼#	2SC772	350M§	150n		60n	150n	120m	6.0 ∅	1.0m∅	45		1.5p		N-PE	Si	125J	R145	D
54▼#	BSY34	400M§	30n∅			50n∅	2.6	1.0 ∅	100m∅	42 †	20	4.5p		N-DPE	Si	200J	TO39	A∅
55▼#	BSY58	400M§	35n∅			60n∅	2.6	1.0 ∅	100m∅	42 †	30	4.5p		N-DPE	Si	200J	TO39	A∅
56▼#	C720	420M§		70n∅		100u∅	360m	1.0 ∅	10m∅	60		4.5p		N-PE	Si	200	TO18	A
57▼#	V723	450M§		22ut∅		65nt∅	360m	1.0 ∅	10m∅	130		3.0p		P-PE	Si	200	TO18	A
58▼#	V721	480M§		80n∅		110u∅	300m	1.0 ∅	10m∅	50		3.0p		P-PE	Si	200	TO18	A
59▼#	2SC423	500M§	70n		120n	60n	500m	5.0 ∅	20m∅	80		5.0p		N-PE	Si	175J	TO39	
60▼#	2SC425	500M§	70n		120n	60n	500m	5.0 ∅	20m∅	80		5.0p		N-PE	Si	175J	TO39	
61▼#	2SC933	500M§	70n		120n	60n	200m	5.0 ∅	20m∅	80				N-PE	Si	125J	TO104	
62▼#	2SC934	500M§	70n		120n	60n	200m	5.0 ∅	20m∅	80				N-PE	Si	125J	TO104	

13. MISCELLANEOUS TRANSISTORS

IN ORDER OF (1) CATEGORY & (2) TYPE No.

LINE No.	2 TYPE No.	1 CATEGORY USE	STRUCTURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1♦	2N592	2	P	Ge	TO5		Pt-125mW;VCBO-20V;ICBO-5.0uA max;hfe-40 typ;Cob-35pf;NF-16db.
2♦	2N593	2	P	Ge	TO9		Pt-125mW;VCBO-40V;ICBO-5.0uA max;hfe-80 typ;Cob-35pf;NF-16db.
3♦	AC127/AC128	5		Ge	TO1		Matched pair of AC127 and AC128
4♦	2N2977*	6	N*Ø	Si	L2j		Pt-.30W;hFE 1/2-.80min;VBE(1-2)-10mV max;ΔVBE(1-2)/ΔT-1.6mV.
5♦	2N3587*	6	N	Si	L2t		Pt-600mW;VBE 1-2-20mV max;ΔVBE(1-2)/ΔT-1.2mV max;VC1C2-50V.
6♦	2N3921*	6	N Ø	Si	L21		Pt-300mW;gm 1/2-.95min;VGS(1-2)-5.0mV max;ΔVGS(1-2/ΔT-10uV/°C.
7♦	2N3922*	6	N Ø	Si	L21		Pt-300mW;gm 1/2-.95min;VGS(1-2)-5.0mV max;ΔVGS(1-2/ΔT-25uV/°C.
8♦	2N3934*	6	N Ø	Si	L21		Pt-300mW;gm 1/2-.95min;VGS(1-2)-5.0mV max;ΔVGS(1-2/ΔT-10uV/°C.
9♦	2N3935*	6	N Ø	Si	L21		Pt-300mW;gm 1/2-.95min;VGS(1-2)-5.0mV max;ΔVGS(1-2/ΔT-25uV/°C.
10♦	2N3954A*	6	N*Ø	Si	L61a		Pt-.50W;IDSS 1/2-.95min;VGS(1-2)-5mV;ΔVGS(1-2)/ΔT-.5mV.
11▼#	BC140-6*	6	N-PEΔ	Si	TO39	AØ	Pt-3.7W at 45°C case;Vsat-1.4V max;hFE 1/2-1.25max.
12▼#	BC140-10*	6	N-PEΔ	Si	TO39	AØ	Pt-3.7W at 45°C case;Vsat-1.4V max;hFE 1/2-1.25max.
13▼#	BC140-16*	6	N-PEΔ	Si	TO39	AØ	Pt-3.7W at 45°C case;Vsat-1.4V max;hFE 1/2-1.25max.
14▼#	BC141-6*	6	N-PEΔ	Si	TO39	AØ	Pt-3.7W at 45°C case;Vsat-1.4V max;hFE 1/2-1.25max.
15▼#	BC141-10*	6	N-PEΔ	Si	TO39	AØ	Pt-3.7W at 45°C case;Vsat-1.4V max;hFE 1/2-1.25max.
16▼#	BC141-16*	6	N-PEΔ	Si	TO39	AØ	Pt-3.7W at 45°C case;Vsat-1.4V max;hFE 1/2-1.25max.
17▼	SD5010*	6	P-MOS☑	Si	L53		Pt 325mW(each side) at 25°C Case temp;yfs 1/2 800m min;VGS(1-2) 70mV.
18▼	SD5011*	6	P-MOS☑	Si	L54		Pt 325mW(each side) at 25°C Case temp;yfs 1/2 800m min;VGS(1-2) 70mV.
19▼	SD5012*	6	P-MOS☑	Si	L53		Pt 325mW(each side) at 25°C Case temp;yfs 1/2 800m min;VGS(1-2) 70mV.
20▼	SD5013*	6	P-MOS☑	Si	L54		Pt 325mW(each side) at 25°C Case temp;yfs 1/2 800m min;VGS(1-2) 70mV.
21♦	SD5050*	6	N-MOS☑	Si	L53		Pt-325mW(each side) at 25°C casetemp;yfs 1/2 .80min;VGS 1/2-200mV max.
22♦#	SL301BE*	6	N	Si	L44b		BVCBO-30V;BVCEO-12V;IC-50mA;hFE(1-2)-500m;VCE-1.0V;ΔVBE(1-2)-12mV.
23▼	SP2060F	6	N	Si	TO89		Pt-350mW(both sides);hFE 1/2-.90min;VBE(1-2)-5.0mV max;ΔVBE(1-2)/ΔT-10uV/°C.
24▼	SP2223AF	6	N	Si	TO89		Pt-350mW(both sides);hFE 1/2-.80min;VBE(1-2)-15mV max;ΔVBE(1-2)/ΔT-25mV/°C.
25▼	SP2920F	6	N	Si	TO89		Pt-350mW(both sides);hFE 1/2-.90min;VBE(1-2)-5.0mV;ΔVBE(1-2)-800uV.
26♦	SU2078*	6	N	Si	L21		Pt-250mW;gm 1/2-.95min;VGS(1-2)-15mV max;ΔVGS(1-2)/ΔT-35uV/Deg. C.
27♦	SU2099A*	6	NØ*	Si	R131		Pt-300mW;gm 1/2-.95min;VGS(1-2)-5mV;ΔVGS(1-2)/ΔT-5.0uV/Deg. C. max.
28♦	TD200	6	N-PL	Si	L2z		hFE 1/2 .90min;VBE(1-2) 5.0mV max;BVCEO 30V;ΔVBE(1-2)/ΔT 20uV/°C.
29♦	TD201	6	N-PL	Si	L2z		hFE1/2.90min;VBE(1-2)10mVmaxBVCEO30V;ΔVBE(1-2)/ΔT30uV/°C.
30♦	TD250	6	N-PL	Si	L2z		hFE 1/2 .90min;VBE(1-2) 3.0mV max;BVCEO 30V;ΔVBE(1-2)/ΔT 10uV/°C.
31♦	TD500	6	P-PL	Si	L17w		hFE 1/2 .90min;VBE(1-2) 5.0mV max;BVCEO 30V;ΔVBE(1-2)/ΔT 20uV/°C.
32♦	TD501	6	P-PL	Si	L17w		hFE 1/2 .90min;VBE(1-2) 10mV max;BVCEO 30V;ΔVBE(1-2)/ΔT 30uV/°C.
33♦	TD550	6	P-PL	Si	L17w		hFE 1/2 .90min;VBE(1-2) 3.0mV max;BVCEO 30V;ΔVBE(1-2)/ΔT 10uV/°C.
34♦	U234*	6	NØ	Si	L58		Pt-300mW;IG(1-2)-10nA max;VGS(1-2)-20mV max;VGS(1-2)ΔT-75uV/°C max.
35♦	U250*	6	NØ	Si	L58a		Pt-.50W;IDSS 1/2-.95min;Gfs 1/2-.95min;VGS 1-2-10mV.
36▼	U257*	6	N *	Si	TO78		IDSS 1/2-1.0max;Gfs 1/2-1.0max;Goss(1-2)-20u mho max;VGS(1-2)-100mV max.
37♦	2N469	7	P-A	Ge	X42		BVCBO-6.0V;hFE-50;hie-3.0kΩ;ICBO-15uA;Sens-11uA/FC;Cob-30pf.
38▼	2N5777	7	N-PL	Si	TO98	B	Photo Darlington Amp;IL 500uA min;ID 100nA max;BVCBO 25V.
39▼	2N5778	7	N-PL	Si	TO98	B	Photo Darlington Amp;IL 500uA min;ID 100nA max;BVCBO 25V.
40▼	2N5779	7	N-PL	Si	TO98	B	Photo Darlington Amp;IL 2.0mA min;ID 100nA max;BVCBO 40V.
41▼	2N5780	7	N-PL	Si	TO98	B	Photo Darlington Amp;IL 2.0mA min;ID 100nA max;BVCBO 40V.
42▼#	BP101	7	N-PE	Si	X8e	AØ	Pt-300mW;Ic-80uA min BVCEO 25V,BVEBO 5.0V;Sens-1.0 lum max;VCE-25V.
43♦#	BPX30	7	NΔ	Si	X8	AØ	Pt-500mW;ICE(D)-1.0uA max;Sens-100mA/mW/cm2;tr-3.0usec;tf-3.0usec.
44▼#	BPX38	7	N-PE	Si	X29c	AØ	Pt-500mW;Ic-1.0mA min VCE(SAT) 300mV;Sens-1.0 lum max;VCE-25V.
45▼#	BPX43	7	N-PE	Si	X8a	A	Pt-300mW;Ic-5.0mA min;Sens-1.0 lum max;VCE-25V.
46▼#	BPY76	7	NΔ†	Si	u75		Pt-100mW;ICE(D)-100nA max;Sens-300uA/mW/cm2;tr-3.0usec;tf-3.0usec.
47♦	LS400	7	N-PLΔ	Si	X69		Pt-50mW;IL-3.0mA typ;ID-25nA max;tr-1.5uS,tf-15uS typ BVCEO-50V;BVECO 6.0V.
48♦	LS600	7	N-PLΔ	Si	X83c		Pt-50mW;IL-1.0mA typ;ID-25nA max;tr-1.5uS,tf-15uS typ BVCEO-50V;BVECO-7.0V.
49▼	TIL63	7	N	Si	X99		ID 25nA max;IL-400uA Min;IL Typ 2.0mA;tr 1.5usec;tf 15usec;VCE-50V;VEC-6.0V.
50▼	TIL64	7	N	Si	X99		ID 25nA max;IL-400uA Min;IL Max 1.6mA;tr 1.5usec;tf 15usec;VCE-50V;VEC-6.0V.
51▼	TIL65	7	N	Si	X99		ID 25nA max;IL-1.0uA Min;IL Max 4.0mA;tr 1.5usec;tf 15usec;VCE-50V;VEC-6.0V.
52▼	TIL66	7	N	Si	X99		ID 25nA max;IL-2.5uA Min;IL Max 10mA;tr 1.5usec;tf 15usec;VCE-50V;VEC-6.0V.
53▼	TIL67	7	N	Si	X99		ID 25nA max;IL-6.4uA Min;tr 1.5usec;tf 15usec;VCE-50V;VEC-6.0V.
54♦	TIL601	7	N-PLΔ	Si	X83c		Pt-50mW;IL-3.0mA max;ID-25nA max;tr-1.5uS;tf-15uS;BVCEO-50V;BVECO 7.0V.
55♦	TIL602	7	N-PLΔ	Si	X83c		Pt-50mW;IL-5.0mA max;ID-25nA max;tr-1.5uS;tf-15uS;BVCEO-50V;BVECO 7.0V.
56♦	TIL603	7	N-PLΔ	Si	X83c		Pt-50mW;IL-8.0mA max;ID-25nA max;tr-1.5uS;tf-15uS;BVCEO-50V;BVECO 7.0V.
57♦	TIL604	7	N-PLΔ	Si	X83c		Pt-50mW;IL-7.0mA min;ID-25nA max;tr-1.5uS;tf-15uS BVCEO-50V;BVECO-7.0.
58♦	TIL605	7	N-PLΔ	Si	u54a		Pt-50mW;IL-3.0mA max;ID-25nA max;tr-1.5uS;tf-15uS;BVCEO-50V;BVECO 7.0V.
59♦	TIL606	7	N-PLΔ	Si	u54a		Pt-50mW;IL-5.0mA max;ID-25nA max;tr-1.5uS;tf-15uS;BVCEO-50V;BVECO 7.0V.
60♦	TIL607	7	N-PLΔ	Si	u54a		Pt-50mW;IL-8.0mA max;ID-25nA max;tr-1.5uS;tf-15uS;BVCEO-50V;BVECO 7.0V.
61♦	TIL608	7	N-PLΔ	Si	u54a		Pt-50mW;IL-7.0mA min;ID-25nA max;tr-1.5uS;tf-15uS BVCEO-50V;BVECO-7.0.
62♦	TIL609	7	N-PLΔ	Si	X97		Pt-50mW;IL-3.0mA max;ID-25nA max;tr-1.5uS;tf-15uS;BVCEO-50V;BVECO 7.0V.
63♦	TIL610	7	N-PLΔ	Si	X97		Pt-50mW;IL-5.0mA max;ID-25nA max;tr-1.5uS;tf-15uS;BVCEO-50V;BVECO 7.0V.
64♦	TIL611	7	N-PLΔ	Si	X97		Pt-50mW;IL-8.0mA max;ID-25nA max;tr-1.5uS;tf-15uS;BVCEO-50V;BVECO 7.0V.
65♦	TIL612	7	N-PLΔ	Si	X97		Pt-50mW;IL-7.0mA min;ID-25nA max;tr-1.5uS;tf-15uS BVCEO-50V;BVECO-7.0.
66♦	TIL613	7	N-PLΔ	Si	X98		Pt-50mW;IL-3.0mA max;ID-25nA max;tr-1.5uS;tf-15uS;BVCEO-50V;BVECO 7.0V.
67♦	TIL614	7	N-PLΔ	Si	X98		Pt-50mW;IL-5.0mA max;ID-25nA max;tr-1.5uS;tf-15uS;BVCEO-50V;BVECO 7.0V.
68♦	TIL615	7	N-PLΔ	Si	X98		Pt-50mW;IL-8.0mA max;ID-25nA max;tr-1.5uS;tf-15uS BVCEO-50V;BVECO-7.0.
69♦	TIL616	7	N-PLΔ	Si	X98		Pt-50mW;IL-7.0mA min;ID-25nA max;tr-1.5uS;tf-15uS BVCEO-50V;BVECO-7.0.
70♦	2N2946A	10	P	Si	TO46	AØ	Pt-400mW;rec(on)-8.0Ω max;VEC(ofs)-.80mV max.
71♦	2N2804*	11	P	Si	L17k		Pt-.50W;hFE-20-120 at IC-.10mA,VCE-5V;VCE(SAT)-.5V.
72♦	MD2218*	11	N-AN	Si	L17k		Pt 600mW;td 20ns max;tr 40ns max;ts 280ns max;tf 70ns max.
73♦	MD2218A*	11	N-AN	Si	L17k		Pt 600mW;td 15ns max;tr 30ns max;ts 250ns max;tf 60ns max.
74♦	MD2218AF*	11	N-AN	Si	L17d		Pt 350mW;td 15ns max;tr 30ns max;ts 250ns max;tf 60ns max.
75♦	MD2218F*	11	N-AN	Si	L17d		Pt 350mW;td 20ns max;tr 40ns max;ts 280ns max;tf 70ns max.
76♦	MD2219*	11	N-AN	Si	L17k		Pt 600mW;td 20ns max;tr 40ns max;ts 280ns max;tf 70ns max.
77♦	MD2219A*	11	N-AN	Si	L17k		Pt 600mW;td 15ns max;tr 30ns max;ts 250ns max;tf 60ns max.
78♦	MD2219AF*	11	N-AN	Si	L17d		Pt 350mW;td 15ns max;tr 30ns max;ts 250ns max;tf 60ns max.
79♦	MD2219F*	11	N-AN	Si	L17d		Pt 350mW;td 20ns max;tr 40ns max;ts 280ns max;tf 70ns max.
80♦	MD2904*	11	P-AN	Si	L17k		Pt 600mW;td 12ns max;tr 35ns max;ts 100ns max;tf 40ns max.
81♦	MD2904A*	11	P-AN	Si	L17k		Pt 600mW;td 12ns max;tr 35ns max;ts 100ns max;tf 40ns max.
82♦	MD2905*	11	P-AN	Si	L17k		Pt 600mW;td 12ns max;tr 35ns max; ts 100ns max;tf 40ns max.
83♦	MD2905A*	11	P-AN	Si	L17k		Pt 600mW;td 12ns max;tr 35ns max;ts 100ns max;tf 40ns max.
84▼#	ML101A	11	P-MOS☑	Si	L25		Single device;Rd(on)-700Ω max;VGS(th)-6.5V max;ID-50mA max.
85▼#	ML101B	11	P-MOS	Si	L25		Single device;Rd(on)-700Ω max;VGS(th)-6.5V max;ID-50mA max.
86▼#	ML102A	11	P-MOS	Si	L54		Matched pair of devices;Rd(on)-700Ω max;VGS(th)-6.5V max;ID-50mA max.
87▼#	ML102B	11	P-MOS	Si	L54		Matched pair of devices;Rd(on)-700Ω max;VGS(th)-6.5V max;ID-50mA max.
88▼#	ML153A	11	P-MOS	Si	L71		Two common-source pairs;Rd(on)-700Ω max;VGS(th)-6.5V max;ID-50mA max.
89▼#	ML153B	11	P-MOS	Si	L71		Two common-source pairs;Rd(on)-700Ω max;VGS(th)-6.5V max;ID-50mA max.
90▼#	ML154A	11	P-MOS	Si	L72		Set of six common-source pairs;Rd(on)-700Ω max;VGS(th)-6.5V max;ID-50mA max.
91▼#	ML154B	11	P-MOS	Si	L72		Set of six common-source pairs;Rd(on)-700Ω max;VGS(th)-6.5V max;ID-50mA max.
92▼#	ML157A	11	P-MOS	Si	L73		Six devices;Rd(on)-700Ω max;VGS(th)-6.5V max;ID-50mA max.
93▼#	ML157B	11	P-MOS	Si	L73		Six devices;Rd(on)-700Ω max;VGS(th)-6.5V max;ID-50mA max.
94▼	MQ2218*	11	N-AN	Si	L56		Four devices;Pt 500mW;td 20ns max;tr 40ns max;ts 280ns max;tf 70ns max.
95▼	MQ2219A*	11	N-AN	Si	L56		Four devices;Pt 500mW;td 15ns max;tr 30ns max;ts 250ns max;tf 60ns max.
96▼	MQ2904*	11	P-AN	Si	L56		Four devices;Pt 500mW;td 12ns max;tr 35ns max;ts 100ns max; tf 40ns max.
97▼	MQ2905A*	11	P-AN	Si	L56		Four devices;Pt 500mW;td 12ns max;tr 35ns max;ts 100ns max;tf 40ns max.
98▼	SP328F	11	P	Si	TO89		Pt-350mW(both sides);VEBO-20V;hFE-(9-22)at 3.0mA,500mV.
99▼	SP328QF	11	P	Si	TO86		Pt-500mW;VEBO-20V;hFE-(9-22)at 3.0mA,500mV.
100▼	SP329F	11	P	Si	TO89		Pt-350mW(both sides);VEBO-20V;hFE-(18-44)at 3.0mA,500mV.
101▼	SP329QF	11	P	Si	TO86		Pt-500mW;VEBO-20V;hFE-(9-22)at 3.0mA,500mV.
102▼	SP706F	11	N Δ	Si	TO89		Pt-350mW(both sides);ts-60nS;hFE-20min at 10mA,1.0V.
103▼	SP708F	11	N Δ	Si	TO89		Pt-350mW(both sides);ton-16nS;toff-30nS;ts-25nS.
104▼	SP918F	11	N	Si	TO89		Pt-350mW(both sides);VCEO-15V;hFE-20min at 3.0mA,1.0V.
105▼	SP929QF	11	N	Si	TO86		Pt-500mW;VCEO-45V;hFE-40min at 10uA,5.0V.
106▼	SP930QF	11	N	Si	TO86		Pt-500mW;VCEO-45V;hFE-100min at 10uA,5.0V.
107▼	SP1132F	11	P	Si	TO89		Pt-350mW(both sides);VCEO-30V;hFE-(30-90)at 150mA,10V.
108▼	SP1711F	11	N	Si	TO89		Pt-350mW(both sides);VCBO-75V;hFE-100min at 150mA,10V.
109▼	SP1890F	11	N	Si	TO89		Pt-350mW(both sides);VCEO-60V;hFE-(100-300)at 150mA,10V.
110▼	SP1893F	11	N	Si	TO89		Pt-350mW(both sides);VCEO-80V;hFE-(40-120)at 150mA,10V.

13. MISCELLANEOUS TRANSISTORS

LINE No.	2 TYPE No.	1 CATEGORY USE	STRUCTURE	MAT	DWG. No.	LEAD CODE	DESCRIPTION
1▼	SP2218AF	11	N Δ	Si	TO89		Pt-350mW(both sides);td-15nS;tr-30nS;ts-250nS;tf-60nS.
2▼	SP2218F	11	N Δ	Si	TO89		Pt-350mW(both sides);td-20nS;tr-40nS;ts-280nS;tf-70nS.
3▼	SP2219AF	11	N Δ	Si	TO89		Pt-350mW(both sides);td-15nS;tr-30nS;ts-250nS;tf-60nS.
4▼	SP2219F	11	N Δ	Si	TO89		Pt-350mW(both sides);td-20nS;tr-40nS;ts-280nS;tf-70nS.
5▼	SP2221AF	11	N Δ	Si	TO89		Pt-350mW(both sides);td-15nS;tr-30nS;ts-250nS;tf-60nS.
6▼	SP2221AQF	11	N Δ	Si	TO86		Pt-500mW(both sides);td-15nS;tr-30nS;ts-265nS;tf-60nS.
7▼	SP2221F	11	N Δ	Si	TO89		Pt-350mW(both sides);td-20nS;tr-40nS;ts-280nS;tf-70nS.
8▼	SP2221QF	11	N Δ	Si	TO86		Pt-500mW;td-20nS;tr-40nS;ts-280nS;tr-70nS.
9▼	SP2222AF	11	N Δ	Si	TO89		Pt-350mW(both sides);td-15nS;tr-30nS;ts-265nS;tf-60nS.
10▼	SP2222AQF	11	N Δ	Si	TO86		Pt-500mW;td-15nS;tr-30nS;ts-265nS;tf-60nS.
11▼	SP2222F	11	N Δ	Si	TO89		Pt-350mW(both sides);td-20nS;tr-40nS;ts-280nS;tf-70nS.
12▼	SP2222QF	11	N Δ	Si	TO86		Pt-500mW;td-20nS;tr-40nS;ts-280nS;tr-70nS.
13▼	SP2369AF	11	N Δ	Si	TO89		Pt-350mW(both sides);ton-12nS;toff-18nS;ts-13nS.
14▼	SP2369F	11	N Δ	Si	TO89		Pt-350mW(both sides);ton-12nS;toff-18nS;ts-13nS.
15▼	SP2483QF	11	N	Si	TO86		Pt-500mW;VCEO-60V;hFE-40min at 10uA,5.0V.
16▼	SP2484F	11	N	Si	TO89		Pt-350mW(both sides);VCEO-60V;hFE-100min at 10uA,5.0V.
17▼	SP2484QF	11	N	Si	TO86		Pt-500mW;VCEO-60V;hFE-100min at 10uA, 5.0V.
18▼	SP2604QF	11	P	Si	TO86		Pt-500mW;VCEO-45V;hFE-40min at 10uA, 5.0V.
19▼	SP2605QF	11	P	Si	TO86		Pt-500mW;VCEO-45V;hFE-100min at 10uA, 5.0V.
20▼	SP2904AF	11	P Δ	Si	TO89		Pt-350mW(both sides);td-10nS;tr-40nS;ts-180nS;tf-50nS.
21▼	SP2904AQF	11	P Δ	Si	TO86		Pt-500mW;td-10nS;tr-40nS;ts-190nS;tf-50nS.
22▼	SP2904F	11	P Δ	Si	TO89		Pt-350mW(both sides);td-10nS;tr-40nS;ts-180nS;tf-50nS.
23▼	SP2904QF	11	P Δ	Si	TO86		Pt-500mW;td-10nS;tr-40nS;ts-190nS;tf-50nS.
24▼	SP2905AF	11	P Δ	Si	TO89		Pt-350mW(both sides);td-10nS;tr-40nS;ts-180nS;tf-50nS.
25▼	SP2905AQF	11	P Δ	Si	TO86		Pt-500mW;td-10nS;tr-40nS;ts-190nS;tf-50nS.
26▼	SP2905F	11	P Δ	Si	TO89		Pt-350mW(both sides);td-10nS;tr-40nS;ts-180nS;tf-50nS.
27▼	SP2905QF	11	P Δ	Si	TO86		Pt-500mW;td-10nS;tr-40nS;ts-190nS;tf-50nS.
28▼	SP2906AF	11	P Δ	Si	TO89		Pt-350mW(both sides);td-10nS;tr-40nS;ts-80nS;tf-30nS.
29▼	SP2906AQF	11	P Δ	Si	TO86		Pt-500mW;td-10nS;tr-40nS;ts-90nS;tf-30nS.
30▼	SP2906F	11	P Δ	Si	TO89		Pt-350mW(both sides);td-10nS;tr-40nS;ts-80nS;tf-30nS.
31▼	SP2906QF	11	P Δ	Si	TO86		Pt-500mW;td-10nS;tr-40nS;ts-90nS;tf-30nS.
32▼	SP2907AF	11	P Δ	Si	TO89		Pt-350mW(both sides);td-10nS;tr-40nS;ts-80nS;tf-30nS.
33▼	SP2907AQF	11	P Δ	Si	TO86		Pt-500mW;td-10nS;tr-40nS;ts-90nS;tf-30nS.
34▼	SP2907F	11	P Δ	Si	TO89		Pt-350mW(both sides);td-10nS;tr-40nS;ts-80nS;tf-30nS.
35▼	SP2907QF	11	P Δ	Si	TO86		Pt-500mW;td-10nS;tr-40nS;ts-90nS;tf-30nS.
36▼	SP2946F	11	P	Si	TO89		Pt-350mW(both sides);VEBO-40V;Vo-800uV max at IB-200uA.
37▼	SP3019F	11	N	Si	TO89		Pt-350mW(both sides);VCEO-80V;hFE-15min at 1.0A, 10V.
38▼	SP3020F	11	N	Si	TO89		Pt-350mW(both sides);VCEO-80V;hFE-15min at 1.0A, 10V.
39▼	SP3115F	11	N Δ	Si	TO89		Pt-350mW(both sides);td-20nS;tr-75nS;ts-300nS;tf-100nS.
40▼	SP3116F	11	N Δ	Si	TO89		Pt-350mW(both sides);td-20nS;tr-75nS;ts-300nS;tf-100nS.
41▼	SP3133F	11	P Δ	Si	TO89		Pt-350mW(both sides);ton-75nS;toff-150nS;hFE-25min at 1.0mA, 10V.
42▼	SP3134F	11	P Δ	Si	TO89		Pt-350mW(both sides);ton-75nS;toff-150nS;hFE-50min at 1.0mA, 10V.
43▼	SP3135F	11	P Δ	Si	TO89		Pt-350mW(both sides);ton-75nS;toff-150nS;hFE-25min at 1.0mA, 10V.
44▼	SP3136F	11	P Δ	Si	TO89		Pt-350mW(both sides);ton-75nS;toff-150nS;hFE-50min at 1.0mA, 10V.
45▼	SP3724QD	11	N Δ	Si	TO116		Pt-800mW;ton-35nS;toff-60nS;hFE-10min at 1.0A, 1.0V.
46▼	SP3724QF	11	N Δ	Si	TO86		Pt-500mW;ton-35nS;toff-60nS;hFE-10min at 1.0A, 1.0V.
47▼	SP3725F	11	N Δ	Si	TO89		Pt-350mW(both sides);ton-45nS;toff-75nS;hFE-30min at 500mA, 2.0V.
48▼	SP3725QD	11	N Δ	Si	TO116		Pt-800mW;ton-35nS;toff-60nS;hFE-10min at 1.0A, 1.0V.
49▼	SP3725QF	11	N Δ	Si	TO86		Pt-500mW;ton-35nS;toff-60nS;hFE-10min at 1.0A, 1.0V.
50♦	TD202	11	N-PL	Si	L2z		fT30MHzmin;hFE150min at 10mA;BVCBO60V;ICBO10nAmax.
51♦	TD402*	11	P-PL†	Si	L17m		Pt 400mW;hFE60min;VBE800mV;Rsat 20Ωmax.
52♦	TD502	11	P-PL	Si	L17w		fT20MHzmin;hFE150min at 10mA;BVCBO40V;ICBO10nAmax.
53♦	TD700	11	PL	Si	L19d		fT20MHzmin;hFE120min at 100uA;BVCBO40V;cob 10pFmax.
54♦	TD701	11	PL	Si	L19d		fT20MHzmin;hFE120min at 100uA;BVCBO40V;cob 10pFmax.
55♦	TD702	11	PL	Si	L19d		ft 200MHz min;hFE 75min at 10mA;BVCBO 40V;ICBO 10uA max.
56▼	PPR1006*	13	N	Si	MT27	AØ	Post Rad hFE-15 at Ic 3.0A;VCE 5.0V.
57▼	PPR1007*	13	N	Si	TO60	AØ	Post Rad hFE-15 at Ic 3.0A;VCE 5.0V.
58▼	PPR1008*	13	N	Si	MT27	AØ	Post Rad hFE-7.0 at Ic 3.0A;VCE 5.0V.
59▼	PPR1009*	13	N	Si	TO60	AØ	Post Rad hFE-7.0 at Ic 3.0A;VCE 5.0V.
60▼	PPR1010*	13	N	Si	TO61	AØ	Post Rad hFE-15 at Ic 10A;VCE 5.0V.
61▼	PPR1011*	13	N	Si	TO61	A	Post Rad hFE-15 at Ic 10A;VCE 5.0V.
62▼	PPR1012*	13	N	Si	TO61	AØ	Post Rad hFE-10 at Ic 10A;VCE 5.0V.
63▼	PPR1013*	13	N	Si	TO61	A	Post Rad hFE-10 at Ic 10A;VCE 5.0V.
64♦	TIXP39*	13	N	Si	TO111	A	At 5.0A hFE is greater than 10 after Irradiation 1x10 14 n/sq. cm.
65♦	TIXP40*	13	N	Si	TO111	A	At 5.0A hFE is greater than 10 after Irradiation 1x10 14 n/sq. cm.
66▼	M22P2	15	N-PL	Si	u58a	T	BVCBO-25V;BVCEO-18V;BVEBO-5.0V;Ic-100mA;hFE-70min at Ic 2.0mA and VCE 4.5V.
67▼	M22P3	15	N-PL	Si	u58a	T	BVCBO-25V;BVCEO-18V;BVEBO-5.0V;Ic-100mA;hFE-110min at Ic 2.0mA and VCE 4.5V.
68▼	M22P4	15	N-PL	Si	u58a	T	BVCBO-25V;BVCEO-18V;BVEBO-5.0V;Ic-100mA;hFE-150min at Ic 2.0mA and VCE 4.5V.
69▼	M23P-X504	15	N-PE	Si	u70	T	2N2219-22 chips.
70▼	M23P-X509	15	N-PE	Si	u70	T	2N3975 chip.
71▼	M23P-X516	15	N-PE	Si	u70	T	2N3976 chip.
72▼	M24P-X502	15	N-PE	Si	u58a	T	2N2714 chip.
73▼	M26P-X504	15	N-PE	Si	u59a	T	2N2484 chip.
74▼	M26P-X505	15	N-PE	Si	u59a	T	2N930 chip.
75▼	M26P-X516	15	N-PE	Si	u59a	T	2N3859 chip.
76▼	M26P-X517	15	N-PE	Si	u59a	T	2N5232 chip.
77▼	M26P-X531	15	N-PE	Si	u59a	T	2N929 chip.
78▼	M26P-X558	15	N-PE	Si	u59a	T	2N5172 chip.
79▼	M26P-X560	15	N-PE	Si	u59a	T	2N3860 chip.
80▼	M28P-X507	15	N-PE	Si	u59a	T	2N3855A chip.
81▼	M28P-X508	15	N-PE	Si	u59a	T	2N3856A chip.
82▼	M32P-X503	15	N-PE	Si	u71	T	2N3414 chip.
83▼	M32P-X506	15	N-PE	Si	u71	T	2N3416 chip.
84▼	M32P-X508	15	N-PE	Si	u71	T	2N3417 chip.
85▼	M32P-X509	15	N-PE	Si	u71	T	2N3415 chip.
86▼	M63P-X503	15	N-PE	Si	u72	T	2N918 chip.
87▼	M67P-X504	15	N-PE	Si	u70	T	2N2905-07 chips.
88▼	M73P1	15	N-PE	Si	u73	T	Darlington chip;BVCBO-18V;BVEBO-12V;hFE-3.0k at Ic-2.0mA and VCE-5.0V.
89▼	M73P-X502	15	N-PE	Si	u73	T	2N5306 Darlington chip.
90▼	M82P-X500	15	N-PE	Si	u74	T	2N708 chip.
91▼	TH95	15	P-PE☑	Si	u66	GPØ	BVCBO50V;BVCEO50V;BVEBO50V;Ic100mAmax;hFE20min at Ic3.0mAandVCE500mV.
92▼	TH2192	15	N-PE	Si	u64	TØ	BVCBO60V;BVCEO40V;BVEBO5.0V;Ic1.0mAmax;hFE100min at Ic50mAandVCE;10V.
93▼	TH2369	15	N-PE△	Si	u60	TØ	BVCBO40V;BVCEO15V;BVEBO4.5V;Ic500mAmax;hFE40min at Ic10mAand VCEVCE5.0V.
94▼	TH2926	15	N-PE	Si	u58	TØ	BVCBO18V;BVCEO18V;BVEBO5.0V;Ic100mAmax;hFE35min at Ic2.0mAandVCE;10V.
95▼	TH2944	15	P-PE☑	Si	u67	TØ	BVCBO15V;BVCEO10V;BVEBO15V;Ic100mAmax;hFE80min at Ic1.0mAandVCE;500mV.
96▼	TH2945	15	P-PE☑	Si	u67	TØ	BVCBO25V;BVCEO20V;BVEBO25V;Ic100mAmax;hFE40min at Ic1.0mAandVCE500mV.
97▼	TH2946	15	P-PE☑	Si	u67	TØ	BVCBO40V;BVCEO35V;BVEBO40V;Ic100mAmax;hFE30min at Ic1.0mAandVCE500mV.
98▼	TH3638	15	P-PE	Si	u48	TØ	BVCBO25V;BVCEO25V;BVEBO4.0V;Ic500mAmax;hFE30min at Ic50mAandVCE10V.
99▼	TH3877	15	N-PE	Si	u59	TØ	BVCBO70V;BVCEO70V;BVEBO4.0V;Ic50mAmax;hFE20min at Ic2.0mAandVCE;4.5V.
100▼	TH3904	15	N-PE	Si	u62	TØ	BVCBO60V;BVCEO40V;BVEBO6.0V;Ic200mAmax;hFE100min at Ic10mAandVCE;5.0V.
101▼	TH3906	15	P-PE	Si	u63	TØ	BVCBO40V;BVCEO40V;BVEBO5.0V;Ic200mAmax;hFE100min at Ic10mAandVCE5.0V.
102▼	TH4258	15	P-PE△	Si	u61	TØ	BVCBO12V;BVCEO12V;BVEBO4.5V;Ic50mAmax;hFE30min at Ic10mAandVCE5.0V.
103▼	TH7500	15	P-PE	Si	u65	TØ	BVCBO60V;BVCEO40V;BVEBO5.0V;Ic1.0mAmax;hFE100min at Ic50mAandVCE;10V.
104▼	TH7501	15	P-PE	Si	u65	TØ	BVCBO60V;BVCEO60V;BVEBO5.0V;Ic1.0mAmax;hFE100min at Ic50mAandVCE;10V.

14. TYPES WITH U.S. MILITARY SPECIFICATIONS

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	MIL-S-19500/
1N4378	•none	300A
		Ø
2N43A	GESY	6A
2N44A	GESY	6A
2N78A	GESY	90
		AMEND
		1
		USAF
2N117	TEC	2B
	TII	
2N118	TII	2B
2N119	TEC	2B
	TII	
2N123	none	30
		AMEND
		2
		USAF
2N128	SPR	9A
2N158	KSC	24C
2N167A	GESY	11B
2N174A	DEL	13B
		AMEND
		2
2N220	RCA	1A
2N240	SPR	25B
2N297A	KSC	36C
	SOD	Ø
2N326	KSC	40B
		Ø
2N328A	CRY	110B
	RAYN	
	SOD	
2N329A	CRY	110B
	RAYN	
	SOD	
2N331	MOTA	4D
2N333	GESY	37C
	TEC	AMEND
	TII	1
2N333A	none	37C
		AMEND
		1
2N335	GESY	37C
	TEC	AMEND
	TII	1
2N335A	GESY	37C
	TEC	AMEND
		1
2N336	GESY	37C
	TEC	AMEND
	TII	1
2N336A	none	37C
		AMEND
		1
2N337	GESY	69D
	TEC	AMEND
	TII	1
2N338	GESY	69D
	TEC	AMEND
	TII	1
2N341	TEC	31B
	TII	
2N342	TEC	16E
	TII	
2N342A	none	16E
2N343	TEC	16E
	TII	
2N358A	GIC	63C
	TII	AMEND
		1
2N384	RCA	27D
2N388	GIC	65A
	RCA	
	TII	
2N389	SEN	173A
	SIL	
	TII	
2N393	MOTA	77C
	SPR	AMEND
		1
2N396A	GESY	64D
2N398A	RCA	174A
		AMEND
		1
2N404	GIC	20B
	RCA	AMEND
	TII	1
2N404A	GIC	20B
	RCA	AMEND
	TII	1
2N416	TII	56B
		EL
2N417	TII	56B
		EL
2N422	none	66B
		NAVY
2N424	SEN	173A
	SIL	Ø
	TII	
2N425	none	41B
		AMEND
		1
		EL
2N426	none	41B
		AMEND
		1
		EL
2N427	TII	41B
		AMEND
		1
		EL
2N428	GIC	44C
	TII	AMEND
		2
2N456B	SOD	217A
	TII	
2N457B	SOD	217A
	TII	
2N458B	SOD	217A
	TII	
2N461	GESY	45A
	MOTA	AMEND
		1
		USAF
2N463	none	70A
		AMEND
		1
		NAVY
2N464	none	49C
2N465	MOTA	49C
		EL
2N466M	GIC	51D
	MOTA	AMEND
		1
2N467	MOTA	49C
		EL
2N489A	†GESY	75B
	†TII	AMEND
		1
2N490A	†GESY	75B
	†TII	AMEND
		1
2N491A	†GESY	75B
	†TII	ØØ
		AMEND
		1
2N492A	†GESY	75B
	†TII	AMEND
		1
2N493A	†GESY	75B
	†TII	AMEND
		1
2N494A	†GESY	75B
	†TII	AMEND
		1
2N497	GESY	74E
	TEC	AMEND
	TII	1
2N498	GESY	74E
	TEC	AMEND
	TII	1
2N499	MOTA	72C
	SPR	AMEND
		2
		EL
2N499A	MOTA	72C
	SPR	AMEND
		1
2N501A	SPR	62B
2N502A	MOTA	112C
	SPR	EL
	TII	
2N502B	MOTA	112C
	SPR	EL
	TII	
2N526	GESY	60D
	MOTA	
2N537	none	100A
		AMEND
		1
2N539	KSC	38C
	SOD	
2N539A	KSC	38C
	SOD	
2N545	TEC	84A
		AMEND
		1
		NAVY
2N559	†none	152C
		AMEND
		3
		EL
2N560	NSC	73B
2N574	SOD	46B
		EL
2N575	SOD	46B
		EL
2N575A	SOD	46B
		EL
2N598	GIC	197C
		AMEND
		2
		EL
2N599	GIC	166C
		AMEND
		3
		NAVY
2N600	GIC	197C
		AMEND
		2
		EL
2N604M	none	221A
		USAF
2N650A	MOTA	175C
2N651A	MOTA	175C
2N652A	MOTA	175C
2N656	GESY	74E
	TEC	AMEND
	TII	1
2N657	GESY	74E
	TEC	Ø
	TII	AMEND
		1
2N665	KSC	58D
	MOTA	
2N695	none	135A
		NAVY
2N696	CDC	99E
	TII	AMEND
		1
2N697	CDC	99E
	TII	AMEND
		1
2N700A	none	123A
		EL
2N702	NSC	153B
	TII	EL
2N703	MOTA	153B
	NSC	EL
	TII	
2N705	TII	86A
		AMEND
		1
2N706	CDC	120B
	FSC	AMEND
	GIC	1
	ITT	
	RAYN	
	TEC	
	TII	
2N708	†ITT	312B
	†MOTA	
2N718A	†AML	181C
	†CDC	ØØ
	†FSC	AMEND
2N720A	†RAYN	2
	†TII	
	†CDC	182C
	†TII	ØØ
2N744	FSC	273A
	TII	NAVY
2N757A	none	218A
2N759A	SOD	218A
	TII	
2N760A	AML	218A
	NSC	Ø
	SOD	
	TII	
2N869A	FSC	283B
	MOTA	ØØ
2N910	AML	274B
	CDC	EL
	FSC	
	RAYN	
	TII	
2N911	CDC	274B
	FSC	EL
	RAYN	
	TII	
2N912	FSC	274B
	RAYN	EL
	TII	
2N914	†MOTA	373
		ØØ
		USAF
2N916	AML	271A
	FSC	Ø
	MOTA	AMEND
	RAYN	2
	TII	NAVY
2N918	†AML	301A
	†FSC	ØØ
	MOTA	AMEND
	†NSC	1
	†RAYN	
	†RCA	
	†TEC	
	†TII	
2N929	†AML	253B
	†CDC	
	FSC	
	†GIC	
	†ITT	
	†MOTA	
	†NSC	
	†RAYN	
	†SOD	
	†TEC	
	†TII	
2N930	†AML	253B
	†CDC	ØØ
	FSC	
	†GIC	
	†ITT	
	†MOTA	
	†NSC	
	†RAYN	
	†SOD	
	†TEC	
	†TII	
2N962	TII	258A
		AMEND
		2
		NAVY
2N964	TII	258A
		AMEND
		2
		NAVY
2N986	none	210B
		NAVY
2N987	APX	267
		AMEND
		2
		EL
2N1008B	none	196A
		AMEND
		2
		EL
2N1011	SOD	67A
		EL
2N1016B	SIL	102A
	WESY	Ø
2N1016C	SIL	102A
	WESY	
2N1016D	SIL	102A
	WESY	
2N1021A	SOD	217A
	TII	
2N1022A	SOD	217A
	TII	
2N1025M	CRY	78B
	SOD	
2N1026M	CRY	78B
	SOD	
2N1039	KSC	89C
	SOD	AMEND
	TII	1
2N1041	KSC	89C
	SOD	Ø
	TII	AMEND
		1
2N1042	KSC	137B
	SOD	
	TII	
2N1043	KSC	137B
	SOD	
	TII	
2N1044	KSC	137B
	SOD	
	TII	
2N1045	KSC	137B
	SOD	
	TII	
2N1046	TII	88
		AMEND
		1
2N1047A	SEN	176A
	SIL	AMEND
	TII	1
2N1048A	SEN	176A
	SIL	AMEND
	TII	1
2N1049A	SEN	176A
	SIL	AMEND
	TII	1
2N1050A	SEN	176A
	SIL	AMEND
	TII	1
2N1051	none	216A
		NAVY
2N1072	none	163
		AMEND
		2
2N1094	none	161
		AMEND
		1
		SigC
2N1118	CRY	138B
	SPR	
2N1119	CRY	139B
	SPR	AMEND
		1
2N1120	SOD	68A
		Ø
		AMEND
		1
2N1131	FSC	177C
	MOTA	
	RAYN	
	TEC	
	TII	
2N1132	FSC	177C
	MOTA	
	RAYN	
	TEC	
	TII	
2N1142	MOTA	87A
	TII	NAVY
2N1157A	SOD	46B
		EL
2N1165	MOTA	178B
	SOD	Ø
		AMEND
		2
		NAVY
2N1173	none	215
		AMEND
		2
		NAVY
2N1174	none	215
		AMEND
		2
		NAVY
2N1183	KSC	143B
	RCA	AMEND
		2
		EL
2N1183A	KSC	143B
	RCA	AMEND
		2
		EL
2N1183B	KSC	143B
	RCA	AMEND
		2
		EL
2N1184	RCA	143B
		AMEND
		2
		EL
2N1184A	RCA	143B
		AMEND
		2
		EL
2N1184B	RCA	143B
		AMEND
		2
		EL
2N1195	MOTA	71D
		AMEND
		1
2N1197	none	165
		SigC
2N1224	APX	189A
	RCA	
2N1225	APX	189A
	RCA	
2N1234	CRY	179
	SOD	AMEND
		1
		SigC
2N1302	GIC	126B
	RCA	
	TII	
2N1303	GESY	126B
	GIC	
	RCA	
	TII	
2N1304	GIC	126B
	RCA	
	TII	
2N1305	GESY	126B
	GIC	
	RCA	
	TII	
2N1306	GIC	126B
	RCA	
	TII	
2N1307	GESY	126B
	GIC	
	RCA	
	TII	
2N1308	GIC	126B
	RCA	
	TII	
2N1309	GIC	126B
	RCA	
	TII	
2N1310	GIC	136A
		NAVY
2N1358	DEL	122C
	MOTA	Ø
2N1411	SPR	133
		AMEND
		1
		SigC
2N1412	MOTA	76C
		Ø
		AMEND
		1
		NAVY
2N1412A	DEL	76C
		AMEND
		1
		NAVY
2N1450M	none	222A
		USAF
2N1469M	CRY	78B
	SOD	Ø
2N1479	RCA	207C
	SIL	EL
2N1480	RCA	207C
	SIL	EL
2N1481	RCA	207C
	SIL	EL
2N1482	RCA	207C
	SIL	EL
2N1483	†RCA	180D
	†SIL	
2N1484	†RCA	180D
	†SIL	
2N1485	†RCA	180D
	†SIL	ØØ
2N1486	†RCA	180D
	†SIL	
2N1487	RCA	208B
	SIL	
	SOD	
2N1488	RCA	208B
	SIL	
	SOD	
2N1489	RCA	208B
	SIL	
	SOD	
2N1490	RCA	208B
	SIL	Ø
	SOD	
2N1493	RCA	247
		AMEND
		2
		EL
2N1499A	SPR	170A
		EL
2N1500	SPR	125C

14. TYPES WITH U.S. MILITARY SPECIFICATIONS

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	MIL-S-19500/
2N1506A	SOD	265
		Ø
		AMEND
		1
		EL
2N1549A	none	332
		EL
2N1550A	none	332
		Ø
		EL
2N1551A	none	332
		EL
2N1552A	none	332
		Ø
		EL
2N1553A	none	331
		AMEND
		1
		EL
2N1554A	none	331
		Ø
		AMEND
		1
		EL
2N1555A	none	331
		AMEND
		1
		EL
2N1556A	none	331
		Ø
		AMEND
		1
		EL
2N1557A	none	330
		AMEND
		1
		EL
2N1558A	none	330
		Ø
		AMEND
		1
		EL
2N1559A	none	330
		AMEND
		1
		EL
2N1560A	none	330
		Ø
		AMEND
		1
		EL
2N1613	†AML	181C
	†CDC	ØØ
	†FSC	AMEND
	†RAYN	2
	†TII	
2N1646M	none	223A
		USAF
2N1651	MOTA	219A
	SOD	AMEND
		4
		EL
2N1652	MOTA	219A
	SOD	AMEND
		4
		EL
2N1653	MOTA	219A
	SOD	AMEND
		4
		EL
2N1711	†CDC	225D
	†FSC	ØØ
	†TII	
2N1714	TII	263A
		AMEND
		2
		EL
2N1715	TII	263A
		AMEND
		2
		EL
2N1716	TII	263A
		AMEND
		2
		EL
2N1717	TII	263A
		AMEND
		2
		EL
2N1722	†TEC	262F
	†TII	ØØ
2N1724	†SIL	262F
	†TEC	ØØ
	†TII	
2N1853	none	171B
		NAVY
2N1854	none	172B
		NAVY
2N1890	†CDC	225D
	†FSC	ØØ
	†TII	
2N1893	†CDC	182C
	†FSC	ØØ
	†TII	
2N2015	RCA	248A
		AMEND
		1
		EL
2N2016	RCA	248A
		AMEND
		1
		EL
2N2034		
2N2060	†AML	270B
	FSC	ØØ
	†GESY	AMEND
	†RAYN	2
	†TII	NAVY
	none	340
	APX	213B
	†none	277C
		ØØ
	†none	277C
		ØØ
	†AML	251E
	†GIC	ØØ
	MOTA	AMEND
	†NSC	1
	†TEC	
	†TII	
2N2218A	†AML	251E
	†GIC	ØØ
	MOTA	AMEND
	†NSC	1
	†TII	
2N2219	†AML	251E
	†GESY	ØØ
	†GIC	AMEND
	†ITT	1
	MOTA	
	†NSC	
	†TEC	
	†TII	
2N2219A	†AML	251E
	†GIC	ØØ
	MOTA	AMEND
	†NSC	1
	†TII	
2N2221	†AML	255E
	†CDC	ØØ
	†GIC	AMEND
	†ITT	1
	MOTA	
	†NSC	
	†SPR	
	†TII	
2N2221A	†AML	255E
	†GIC	ØØ
	†ITT	AMEND
	MOTA	1
	†NSC	
	†SPR	
	†TII	
2N2222	†AML	255E
	†CDC	ØØ
	†GIC	AMEND
	†ITT	1
	MOTA	
	†NSC	
	†SPR	
	†TEC	
	†TII	
2N2222A	†AML	255E
	†GIC	ØØ
	†ITT	AMEND
	MOTA	1
	†NSC	
	†SPR	
	†TII	
2N2273	none	244B
		EL
2N2369A	APX	317D
	FSC	ØØ
	†ITT	
	†MOTA	
	†NSC	
	†RAYN	
2N2377	†TII	
	CRY	288
	SPR	AMEND
		2
		EL
2N2378	CRY	289
	SPR	AMEND
		3
		EL
2N2417A	†none	75B
		AMEND
		1
2N2418A	†none	75B
		AMEND
		1
2N2419A	†none	75B
		AMEND
		1
2N2420A	†none	75B
		AMEND
		1
2N2421A	†none	75B
		AMEND
		1
2N2422A	†none	75B
		AMEND
		1
2N2432	†CRY	313A
	†TEC	ØØ
	†TII	
2N2432A	†CRY	313A
	†TEC	ØØ
	†TII	
2N2481	FSC	268B
	†RAYN	ØØ
	†TII	AMEND
		1
		NAVY
2N2484	†AML	376
	†RAYN	USAF
2N2497	†none	378A
		USAF
2N2498	†none	378A
		USAF
2N2499	†none	378A
		USAF
2N2500	†none	378A
		USAF
2N2528	none	309
		AMEND
		1
		NAVY
2N2553	KSC	89C
	SOD	AMEND
	TII	1
2N2555	KSC	89C
	SOD	AMEND
	TII	1
2N2557	KSC	89C
	SOD	AMEND
	TII	1
2N2559	KSC	89C
	SOD	AMEND
	TII	1
2N2604	NSC	354
	SOD	Ø
		AMEND
		2
		EL
2N2605	NSC	354
	SOD	Ø
		AMEND
		2
		EL
2N2606	AML	292
	SIX	Ø
		AMEND
		2
		NAVY
2N2607	AML	294
	SIX	Ø
		AMEND
		2
		NAVY
2N2608	AML	295
	SIX	Ø
		AMEND
		2
		NAVY
2N2609	AML	296
	SIX	Ø
		AMEND
		2
		NAVY
2N2631	none	303
		AMEND
		2
		NAVY
2N2639	†none	316A
		AMEND
		1
		USAF
2N2642	†AML	316A
	†TII	AMEND
		1
		USAF
2N2708	AML	302A
	MOTA	
	RCA	
2N2812	†none	415
		USAF
2N2814	†none	415
		USAF
2N2834	none	310
		Ø
		AMEND
		1
		NAVY
2N2857	†MOTA	343
	†RCA	ØØ
		AMEND
		2
		USAF
2N2858	†none	381
		ØØ
		EL
2N2859	†none	381
		ØØ
		EL
2N2876	none	303
		AMEND
		2
		NAVY
2N2880	†SOD	315B
	TII	AMEND
		1
		USAF
2N2904	†AML	290B
	†GIC	ØØ
	MOTA	AMEND
	†NSC	1
	†RAYN	
	†SPR	
	†TEC	
	†TII	
2N2904A	†AML	290B
	MOTA	ØØ
	†NSC	AMEND
	†RAYN	1
	†TEC	
	†TII	
2N2905	†AML	290B
	†GIC	ØØ
	MOTA	AMEND
	†NSC	1
	†RAYN	
	†SPR	
	†TEC	
	†TII	
2N2905A	†AML	290B
	MOTA	ØØ
	†NSC	AMEND
	†RAYN	1
	†TEC	
	†TII	
2N2906	†AML	291B
	GIC	ØØ
	†MOTA	AMEND
	†NSC	1
	†RAYN	
	†TEC	
	†TII	
2N2906A	†AML	291B
	GIC	ØØ
	†MOTA	AMEND
	†NSC	1
	†RAYN	
	†TEC	
	†TII	
2N2907	GIC	291B
	†ITT	ØØ
	†MOTA	AMEND
	†NSC	1
	†RAYN	
	†TEC	
	†TII	
2N2907A	†AML	291B
	†GIC	ØØ
	†MOTA	AMEND
	†NSC	1
	†RAYN	
	†TEC	
	†TII	
2N2911	†none	381
		ØØ
		EL
2N2919	†AML	355A
	FSC	ØØ
	SOD	
2N2920	†AML	355A
	FSC	ØØ
	†NSC	
	†RAYN	
	SOD	
	†UCC	
2N2944A	†none	382
		ØØ
		AMEND
		1
		USAF
2N2945A	†TII	382
		ØØ
		AMEND
		1
		USAF
2N2946A	†TII	382
		ØØ
		AMEND
		1
		USAF
2N2996	none	360
		NAVY
2N2997	none	360
		NAVY
2N3013	FSC	287
	TII	AMEND
		3
		NAVY
2N3019	†RAYN	391
	†TEC	ØØ
		AMEND
		2
		USAF
2N3055	†SOD	407
		AMEND
		3
		USAF
2N3057A	†none	391
		ØØ
		AMEND
		2
		USAF
2N3127	none	346
		AMEND
		1
		EL
2N3250A	MOTA	323A
	†RAYN	AMEND
		2
		NAVY
2N3251A	MOTA	323A
	†RAYN	ØØ
	†TII	AMEND
		2
		NAVY
2N3253	MOTA	347
	TII	Ø
		NAVY
2N3329	†none	378A
		USAF
2N3330	†none	378A
		USAF
2N3331	†none	378A
		USAF
2N3332	†none	378A
		USAF
2N3375	†ITT	341B
	†RCA	ØØ
2N3418	†none	393
		ØØ
		AMEND
		3
		USAF
2N3419	†none	393
		ØØ
		AMEND
		3
		USAF
2N3420	TII	393
		ØØ
		AMEND
		3
		USAF
2N3421	TII	393
		ØØ
		AMEND
		3
		USAF
2N3439	RCA	368
		Ø
		NAVY
2N3440	RCA	368
		Ø
		NAVY
2N3441	RCA	369
		Ø
		AMEND
		1
		NAVY
2N3442	RCA	370
		Ø
		AMEND
		1
		NAVY
2N3444	MOTA	347
		Ø
		NAVY
2N3449	TII	338
		AMEND
		1
		USAF
2N3467	TII	348
		Ø
		AMEND
		2
		NAVY
2N3468	†none	348
		Ø
		AMEND
		2
		NAVY
2N3485A	†none	392
		ØØ
		USAF
2N3486A	†none	392
		ØØ
		AMEND
		1
		USAF
2N3498	†MOTA	366A
		ØØ
		EL
2N3499	†MOTA	366A
		ØØ
		EL
2N3500	†MOTA	366A
		ØØ
		EL
2N3501	†MOTA	366A
		ØØ
		EL
2N3506	MOTA	349A
		Ø
2N3507	MOTA	349A
		Ø
2N3553	†ITT	341B
	†RCA	ØØ
2N3584	none	384
		Ø
		AMEND
		1
		NAVY
2N3585	none	384
		Ø
		AMEND
		1
		NAVY
2N3634	†MOTA	357B
		ØØ
		EL
2N3635	†MOTA	357B
		ØØ
		EL
2N3636	†MOTA	357B
		ØØ
		EL
2N3637	†MOTA	357B
		ØØ
		EL

14. TYPES WITH U.S. MILITARY SPECIFICATIONS

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	MIL-S-19500/	TYPE No.	MFRS	MIL-S-19500/	TYPE No.	MFRS	MIL-S-19500/	TYPE No.	MFRS	MIL-S-55191/	TYPE No.	MFRS	MIL-S-55191/
2N3700	†RAYN	391 ØØ AMEND 2 USAF	2N3999	†none	374 ØØ AMEND 1 USAF	3N127	†none	390 ØØ USAF	55191/33	none	33 EL			
									55191/34	none	34 EL			
									55191/36	none	36			
2N3713	†none	408 ØØ EL	2N4150	†none	394 ØØ AMEND 1 USAF									
2N3714	†none	408 ØØ EL	2N4440	†RCA	341B									
2N3715	†none	408 ØØ EL	2N4449	†none	317D ØØ									
			2N4453	†none	283B									
2N3716	†none	408 ØØ EL	2N4856	†none	385 ØØ USAF									
2N3735	†none	395 AMEND 2 USAF	2N4857	†none	385 ØØ USAF									
2N3737	†none	395 AMEND 2 USAF	2N4858	†none	385 ØØ USAF									
			2N4859	†none	385 ØØ USAF									
2N3739	†none	402 USAF	2N4860	†none	385 ØØ USAF									
2N3742	†none	405 AMEND 1 EL	2N4861	†none	385 ØØ USAF									
2N3743	†none	397 EL	2N4865	†none	380A ØØ AMEND 1 EL									
2N3749	†SOD	315B AMEND 1 USAF												
2N3763	†none	396 AMEND 2 USAF	2N4926	†none	405 AMEND 1 EL									
2N3765	†none	396 AMEND 2 USAF	2N4927	†none	405 AMEND 1 EL									
2N3771	†none	413 AMEND 1 USAF	2N4930	†none	397 EL									
			2N4931	†none	397 EL									
2N3772	†none	413 AMEND 1 USAF	2N4947	†none	388 ØØ USAF									
			2N4948	†none	388 ØØ USAF									
2N3791	†none	379A ØØ EL	2N4949	†none	388 ØØ USAF									
2N3792	†none	379A ØØ EL	2N5156	none	416 AMEND 2 EL									
2N3810	TII	336 Ø AMEND 2 NAVY	2N5237	†none	394 AMEND 2 USAF									
2N3811	none	336 Ø NAVY	2N5238	†none	394 AMEND 2 USAF									
2N3821	†AML	375A ØØ												
2N3822	†AML	375A ØØ	2N5241	†none	414 USAF									
2N3823	†AML	375A	2N5250	AML	380A ØØ AMEND 1 EL									
	†TII	ØØ												
2N3846	†none	412 AMEND 1 USAF	2N5251	AML	380A ØØ AMEND 1 EL									
2N3847	†none	412 AMEND 1 USAF												
2N3866	†none	398	2N5332	†none	409 USAF									
2N3867	†none	350A ØØ	2N5399	†none	410 USAF									
2N3868	†none	350A ØØ	2N5581	†none	423 AMEND 1 USAF									
2N3902	†DEL	371 ØØ AMEND 3 USAF	2N5582	†none	423 AMEND 1 USAF									
2N3959	†none	399 ØØ												
2N3960	†MOTA	399 ØØ	3N35	TII	80D									
2N3996	†none	374 ØØ AMEND 1 USAF	3N74	†none	390 ØØ USAF									
			3N75	†TII	390 ØØ USAF									
2N3997	†none	374 ØØ AMEND 1 USAF	3N76	†TII	390 ØØ USAF									
2N3998	†none	374 ØØ AMEND 1 USAF	3N93	none	363 Ø AMEND 1 NAVY									
			3N108	TII	361 Ø NAVY									

THE PREFIX LETTERS OF THE OUTLINE DRAWING NUMBERS INDICATE THE FOLLOWING:

L – MULTIPLE Lead Type
MD – MOUNTED Type – DIAMOND Base
MM – MOUNTED Type – MISCELLANEOUS Configuration
MS – MOUNTED Type – SQUARE and RECTANGULAR Base
MT – MOUNTED Type – THREADED
OV – OVAL Case
R – ROUND Case
TO – JEDEC Type
u – MICROMINIATURE CASE
x – MISCELLANEOUS Configuration including Phototransistor
ZA – DRAWING REFERENCE INFORMATION

NOTES:

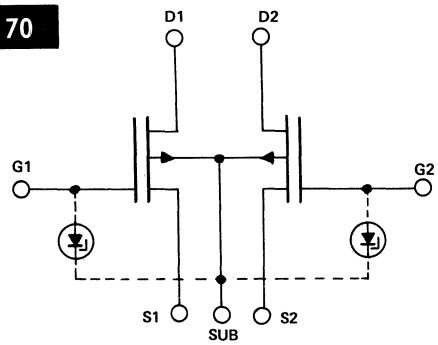
These outline drawings are intended as a guide for the user. They should not be used for construction purposes without first checking with the appropriate manufacturer.

These drawings are referenced in the Technical Sections of this D.A.T.A.BOOK in accordance with information supplied by the manufacturers.

The DO and TO drawings have been reproduced from JEDEC Publication No. 12E (May 1964) with the permission of the National Electrical Manufacturer's Association - Electrical Industries Associates. JEDEC designations are assigned only to outlines submitted by the JS-10 Committee on Mechanical Standardization. The procedure of assigning and announcing the JEDEC designation constitutes registration.

All drawings have circular symmetry unless indicated.

L 70

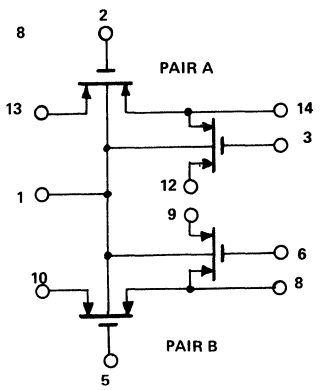


	S1	G1	D1	S2	G2	D2	SUB	OUTLINE
L70	1	3	2	7	5	6	4	TO99

L70a – ZENER DIODES OMITTED

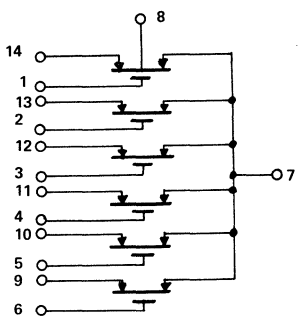
L 71

1 – SUB
2 – G1a
3 – G2a
4 –
5 – G1b
6 – G2b
7 –
8 – COM SB
9 – D2b
10 – D1b
11 –
12 – D2a
13 – D1a
14 – COM SA



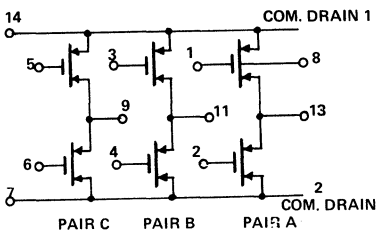
L 72

1 – G1
2 – G2
3 – G3
4 – G4
5 – G5
6 – G6
7 – COM S
8 – SUB
9 – D6
10 – D5
11 – D4
12 – D3
13 – D2
14 – D1

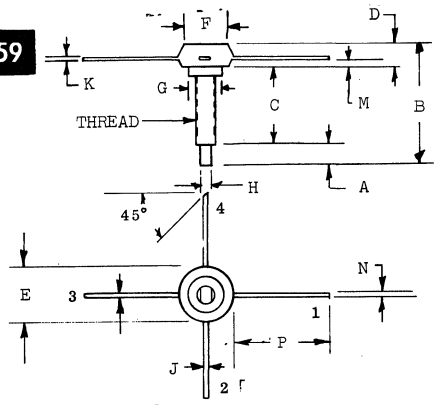


L 73

1 – G1a
2 – G2a
3 – G1b
4 – G2b
5 – G1c
6 – G2c
7 – COM D2
8 – SUB
9 – COM SC
10 –
11 – COM SB
12 –
13 – COM SA
14 – COM D1



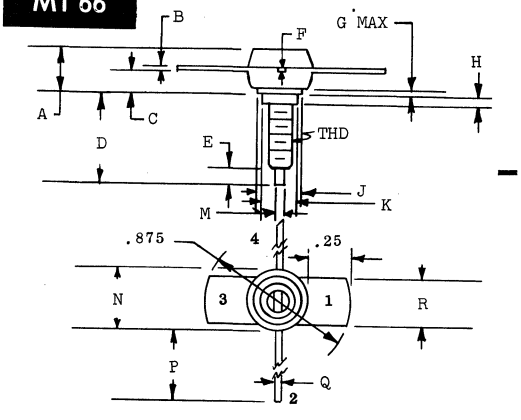
MT59



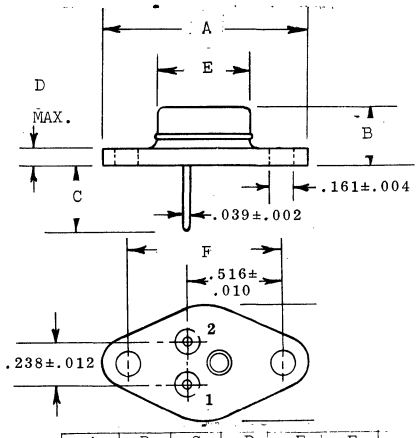
	A	B	C	D	E	F	G	H	J	K	M	N	P	THREAD
MT59	.125	.655	.500	.155	.375			.060	.030	.015	.055	.030	.450	8-32UNC-2B
MT59b	.118	.655	.500	.155	.375			.060	.030	.015	.055	.030	.450	8-32UNC-2B
MT59c	.145	.655	.500	.155	.375			.060	.030	.015	.055	.030	.450	8-32UNC-2B
MT59d	.118	.787	.626	.614	.394	.378	.276	.079	.079	.0039	.063	.118	.450	8-32UNC-2B
MT59e		.641	.484	.157	.394	.378			.033	.016	.075	.033	.250	M5
MT59f	.145	.615	.355	.160	.365	.365	.250	.060	.223	.006	.070	.223	.375	8-32UNC-2A
MT59g	.145	.670	.385	.155	.365		.250	.060	.030	.015	.055 MIN	.290	.250	8-32UNC-2A
MT59h	.137	.700			.396 MAX		.295 MAX	.078 MAX	.031 MAX	.020 MAX	.125 MAX	.031 MAX	.275 MAX	8-32
MT59j	.145 MAX	.645 .695	.550 MAX	.145 MAX	.355 .375		.240 .260	.060	.030	.014 .016	.055 MIN		.500	8-32UNC2A

	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	THD
MT66	.165	.015	.055	.515	.145	.015	.020	.060	.285	.250	.060	.375	.500	.030	.290	8-32UNC2A
MT66a	.220	.003	.106	.512	.118	.007			.323	.275	.079	.433	.075	.079	.118	M4

MT 66

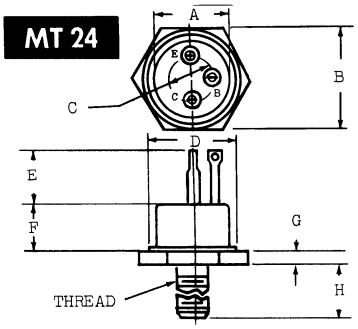


MD 17



	A	B	C	D	E	F
MD17	1.18	.350	.350 MIN	.071	.562	.900 .910
MD17a		.350	.382 .429	.106	.562	.900 .910
MD17b	1.23	.315	.394	.079	.562	.900 .910
MD17c	1.23 MAX	.350 MAX	.354 .413	.106	.574 MAX	.897 .913
MD17d	1.56	.275 MAX	.400 .500	.150	.900 MAX	1.18 1.20
MD17e	1.20 1.23	.291 .314	.374 .413	.078	.553 .559	.901 .909

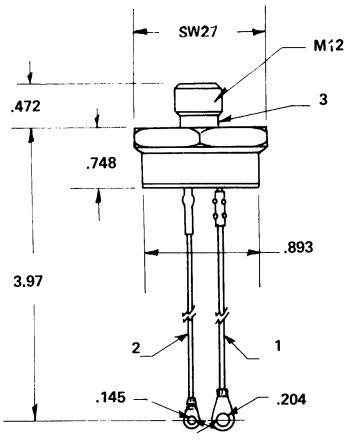
MT 24



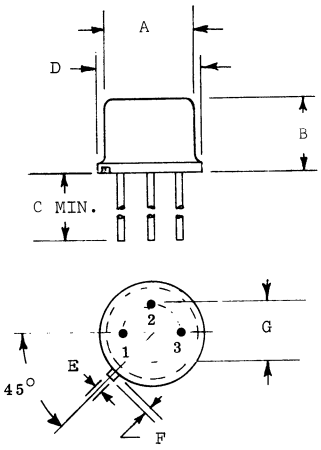
	THREAD
MT24	10-32UNF2A
MT24A	M5

	A	B	C	D	E	F	G	H
MT24	.420	.562	.250	.536	.312	.280	.115	.437
MT24a	.326	.433			.149	.149	.129	.440

MT 76

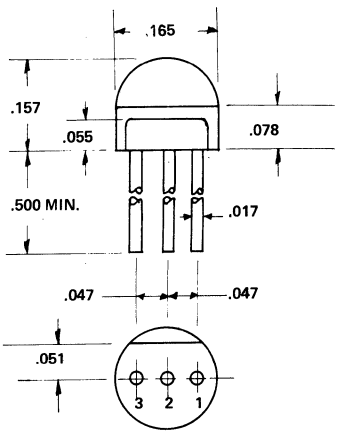


R 81

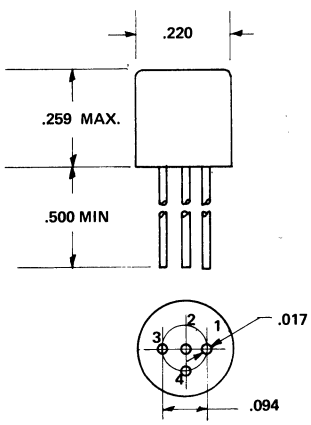


	A	B	C	D	E	F	G
R81	.305 .330	.240 .26	1.50	.370 .335	.028 .034	.029 .045	.200
R81a	.335 .275	.200 .260	.500	.370 .335	.028 .034	.029 .045	.200
R81b	.305 .335	.150 .260	1.50	.370 .335	.028 .034	.029 .045	.200
R81c	.310 .340	.240 .390	1.50	.370 .335	.028 .034	.029 .045	.200
R81d	.320 .330	.240 .260	.500	.370 .335	.028 .034	.029 .045	.200
R81e	.305 .335	.160 .180	.500	.370 .335	.028 .034	.029 .045	.200
R81f	.330	.255	1.00	.370 .335	.028 .034	.029 .045	.200
R81g	.310 .330	.240 .260	1.00	.370 .335	.028 .034	.029 .045	.200
R81h	.305 .335	.240 .260	.500	.370 .335	.028 .034	.029 .045	.200
R81j	.305 .335	.240 .270	1.50	.370 .335	.028 .034	.029 .045	.200
R81k	.181 .193	.065 .085	1.50 MIN	.210 .230	.041	.042	.100
R81m	.183 .185	.192 .204	.492	.210 .216			.087 .111

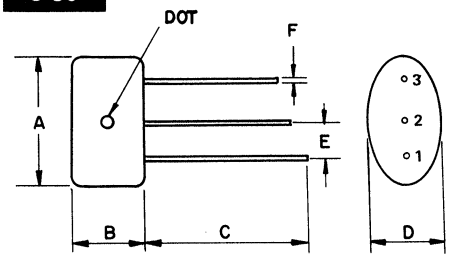
R 145



R 146

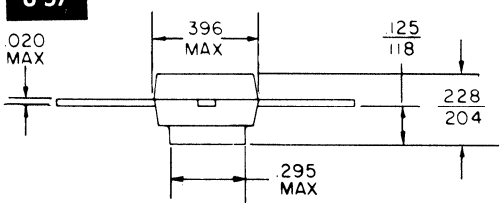


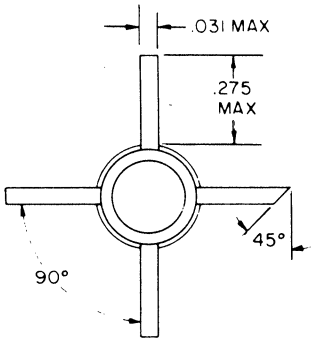
u 30



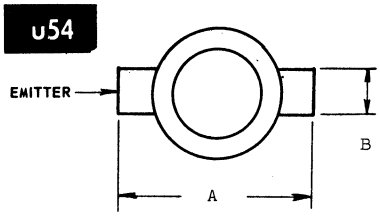
	A	B	C	D	E	F
u30	.137	.086	.177	.066	.059	.011x.003
u30a	.059	.078	.196	.039	.023	.007x.003
u30b	.141	.086	.177	.086	.059	.011x.003

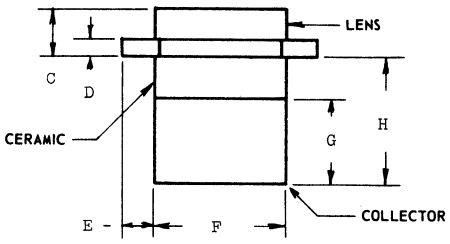
u 57





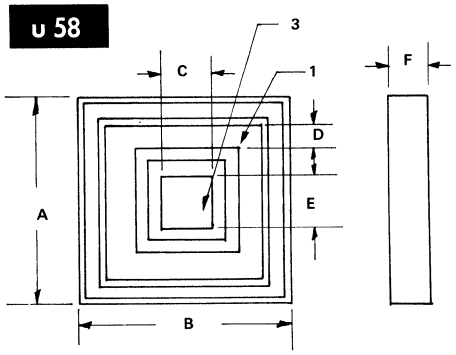
u54





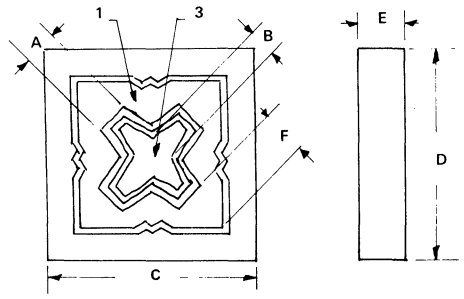
	A	B	C	D	E	F	G	H
u54	.084	.016	.015	.004	.009	.059	.044	.060
	.092	.024	.020	.006	.019	.062	.046	.066
u54a	.084	.016	.018	.005	.009	.058	.063	.082
	.092	.024	.032	.010	.019	.061	.067	.088

u 58



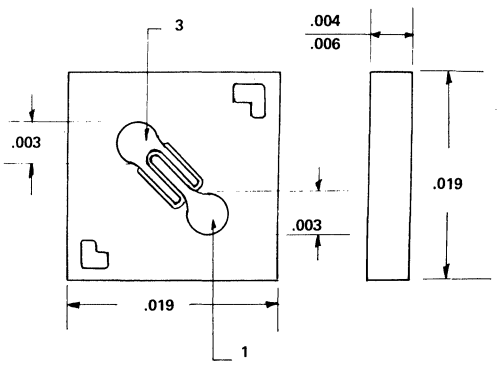
	A	B	C	D	E	F
u58	.023	.023	.006	.002	.006	.004 .006
u58a	.866	.866	.236	.078	.236	.212

u 59

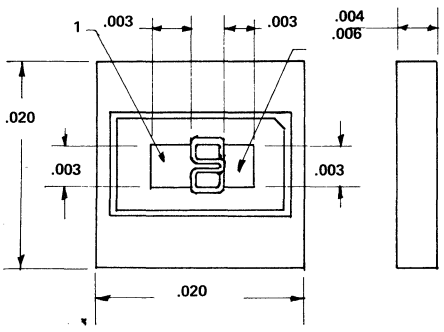


	A	B	C	D	E	F
u59	.004	.003	.019	.019	.004 .006	
u59a		.118	.708	.708	.212	.098

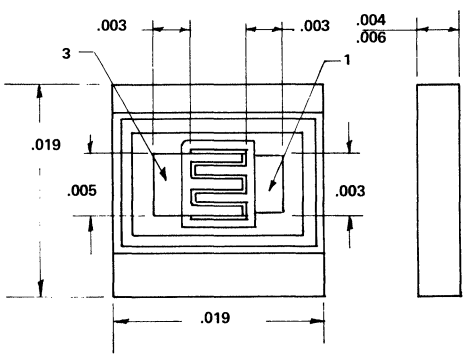
u 60



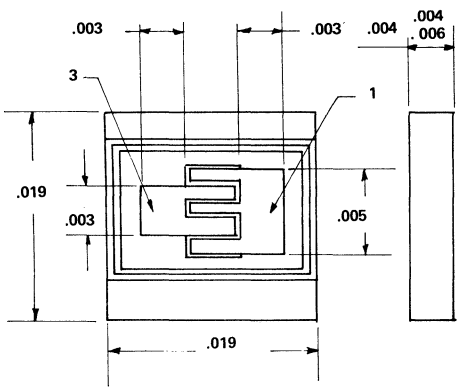
u 61



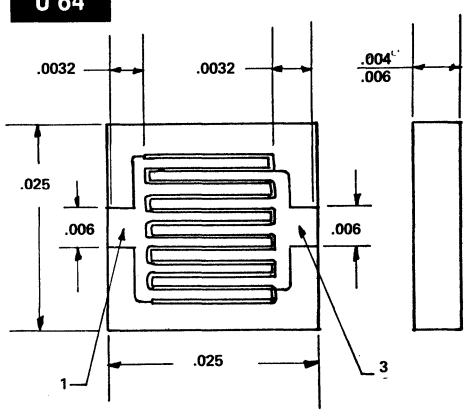
u 62



u 63

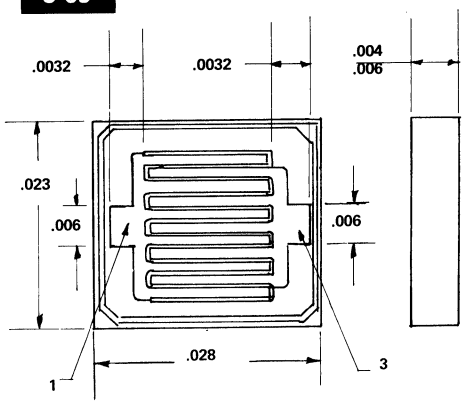


u 64

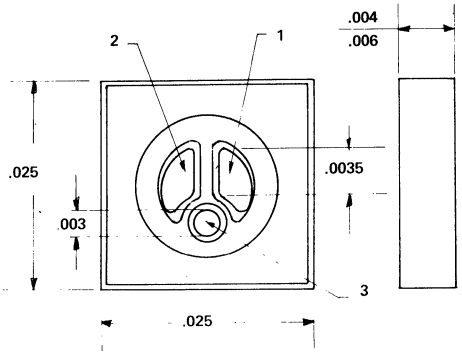


15. OUTLINE DRAWINGS

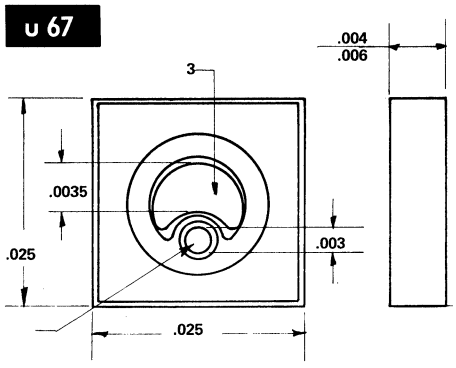
U 65



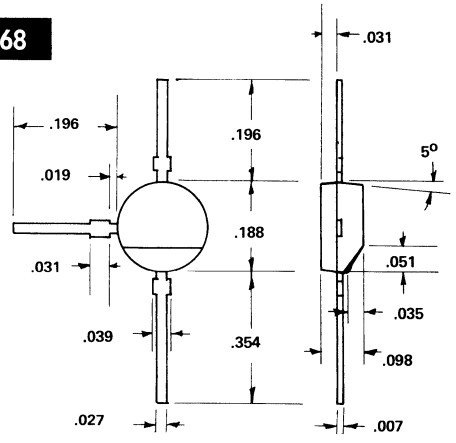
U 66



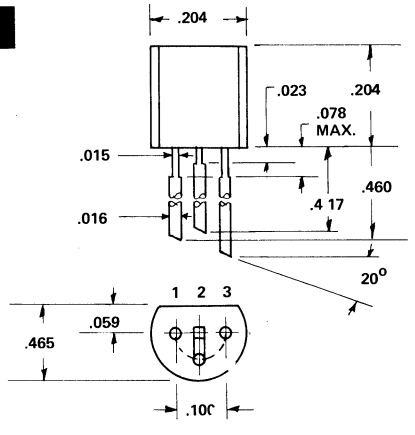
U 67



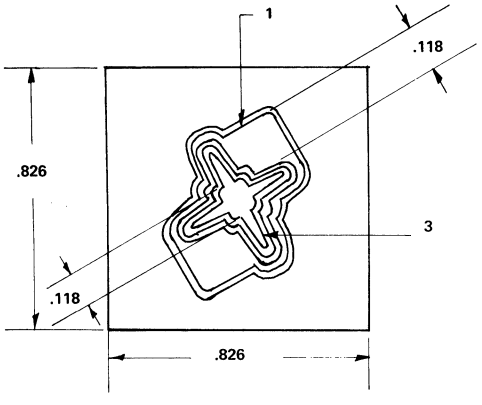
U 68



U 69

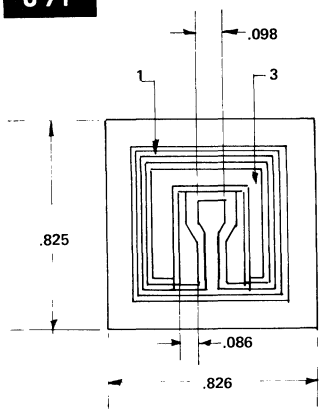


U 70

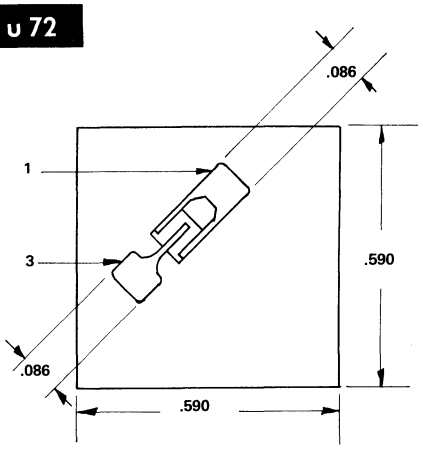


15. OUTLINE DRAWINGS

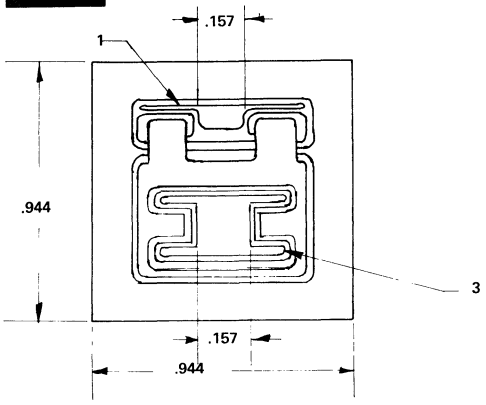
U 71



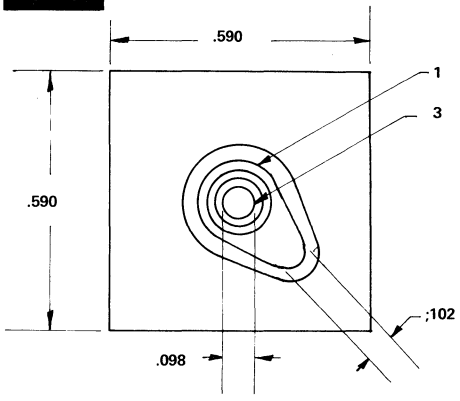
U 72



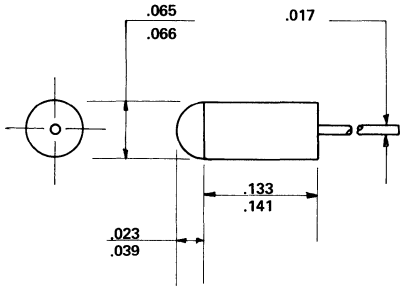
U 73



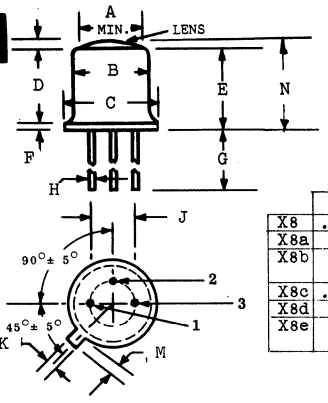
U 74



U 75

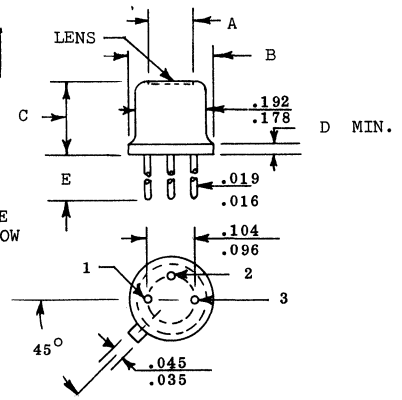


X 8



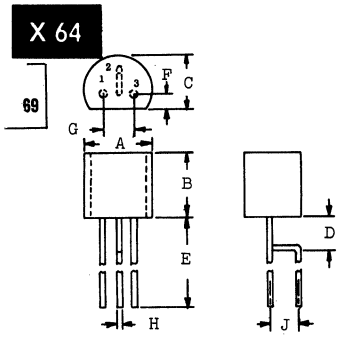
	A	B	C	D	E	F	G	H	J	K	M	N
X8	.110	.186	.220	.020	.190	.030	.500	.017	.100	.040	.038	
X8a		.185	.216		.240		.531	.015	.098			
X8b		.1865	.2095		.291		.500 MIN	.0175	.100			
X8c	.228	.334	.370	.039	.260	.010	.500	.015	.200	.031	.043	
X8d		.187	.220		.190	.030	1.50	.019	.100	.041	.042	
X8e		.169					.492 / .570	.017	.087 / .111			.157

X 29



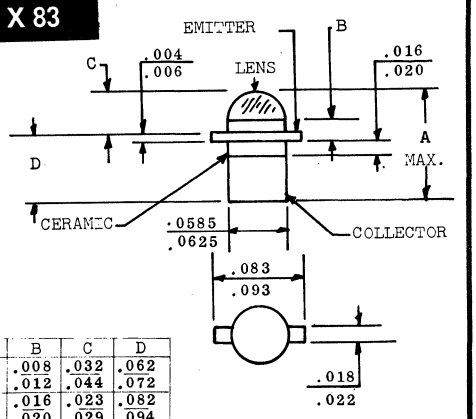
	A	B	C	D	E
X29	.117 / .123	.208 / .220	.194 / .202	.013	.500 MIN
X29a	.117 / .123	.208 / .220	.194 / .202	.013	.500 MIN
X29b	.100	.208 / .230	.271		.500 / .590
X29c			.204		.492 / .570

X 64



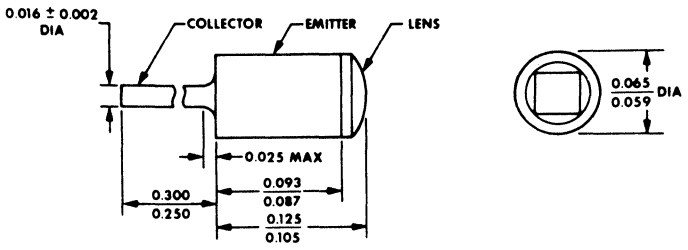
	A	B	C	D	E	F	G	H	J
X64	.197	.197	.157	.087	.492	.059	.098	.020	.048
X64a	.175 / .205	.170 / .210	.125 / .165	.050	.500		.095 / .105	.016 / .019	.050
X64b	.173 / .188	.165 / .181	.133 / .149		.492 / .570		.095 / .103	.017	

X 83

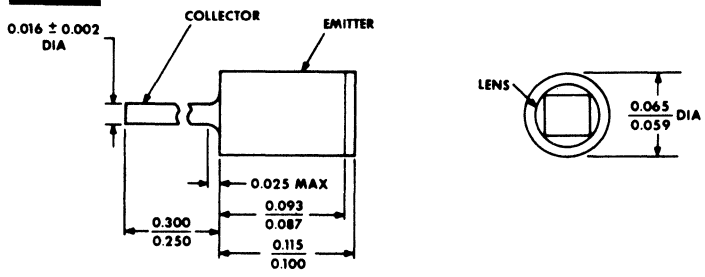


	A	B	C	D
X83	.118	.008 / .012	.032 / .044	.062 / .072
X83a	.125	.016 / .020	.023 / .029	.082 / .094
X83c	.115		.015 / .017	.087 / .098

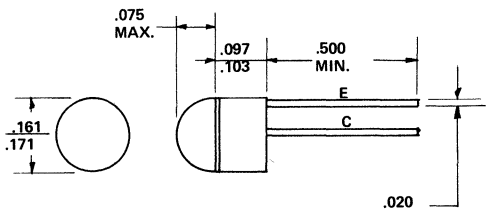
X 97



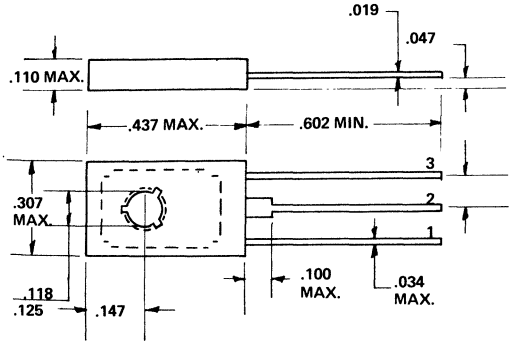
X 98



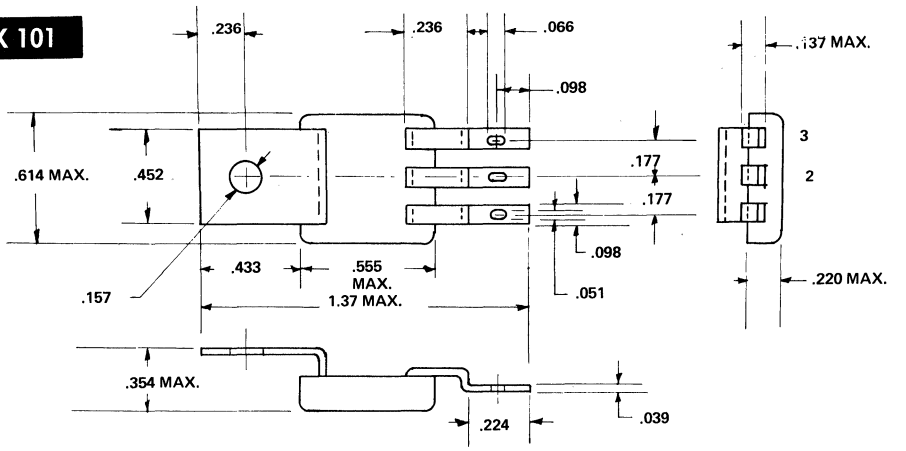
X 99



X 100



X 101


.236
.236
.066
.098
.137 MAX.
3
2
.614 MAX.
.452
.177
.177
.098
.051
.433
.555
MAX.
1.37 MAX.
.157
.220 MAX.
.354 MAX.
.224
.039

D.A.T.A. LEAD CODE IDENTIFICATION GUIDE

LEAD CODE EXPANDER
⍁ — Emitter or Source tied to case
§ — Base or Drain tied to case
∅ — Collector or Gate tied to case

LEAD CODE	LEAD CONFIGURATION			
	1	2	3	4
A	E	B	C	
B	E	C	B	
C	B	E	C	
D	B	C	E	
E	C	E	B	
F	C	B	E	
G	E	B	C	CASE
H	E	B	CASE	C
J	B	E	C	CASE
K	B	E	CASE	C
L	E	C	B	C
M	B	C	CASE	E
N	C	B	E	E
P	E	B	C	C
R	E	B	E	C
S	E	C	E	B
T	B		E	
U	C	B	E	B
V	C	E	B	E
W	E		C	
X	B	C	E	CASE
	1	2	3	4
Y	B	E	C	E
Z	B	E	B	C
CA	E	B1		B2 / CASE
CB	B1	E	B2	
CC	E	B1		B2
CD	E	B2	B1	
DA	S	G	D	
DB	S	D	G	
DC	D	G	S	
DD	D	S	G	
DE	G	S	D	
DF	G	D	S	
DG	S	G	D	CASE
DH	S	D	G	CASE
DJ	D	S	G	CASE
DK	D	G	S	CASE

LEAD CODE	LEAD CONFIGURATION			
	1	2	3	4
DM	D	G	SUB / CASE	S
DN	S / SUB	G	D	SUB / CASE
DP	D	G	S	SUB / CASE
DQ	S / SUB	D	G	
DR	S	G	D	SUB / CASE
DS	D	G	SUB	S
DT	D	G	S	SUB
DU	S	G1	D	G2 / CASE
DV	S	G1	D	G2-SUB / CASE
DW	D	S	G	SUB / CASE
DX	D	G2	G1	S / SUB
DY	S	D	G2 / CASE	G1
DZ	G	D	SUB / CASE	S
EA	S	G2	D	S
EB	D	D	G	G
EC	G1	S	G1	G2 / SUB
GA	E	B1	C	B2
GB	C	B1	E	B2
GC	E1	B	C	E2
GD	E1	B	E2	C
GE	C	E1	B	E2
GG	E2	E1	B	C
GH	E2	B	E1	C
GJ	B	E1	C	E2
GK	B1	E	C	B2
GM	B1	C	E	B2
GN	E	B2	B1	C
GP	E1	E2	B	

A—BZ	**Bipolar**
CA—CZ	**UJT**
DA—FZ	**FET**
GA—	**Multi Element Bipolar**

ABBREV.	TERM
E	Emitter
B	Base
C	Collector
S	Source
D	Drain
G	Gate
Sub	Substrate
Case	Case/Shield

NOTES

We feel you may have some useful comments which deserve consideration for future editions. Please complete and return to us the **User Feedback Card.**

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SECTION 20 MANUFACTURERS CODES, NAMES & ADDRESSES

QPL MFR. DESIG.	FSCM No.	DATA MFRS.' CODE	
—	—	**AKER**	A/S Akers Electronics, Forskningsvn, 1, Horten, Norway
CDAG	15818	**AML**	**Amelco Semiconductor, 1300 Terra Bella Ave., Mountain View, California 94040**
—	—	**ANOA**	Anodeon Semiconductor Division, Electronics Park, Hamilton Street, Huntingdale, Victoria, Australia
CEP	73445	**APX**	**Amperex Electronic Corp., Semiconductor and Receiving Tube Division, Slatersville, Rhode Island 02876**
—	—	**ASC**	American Semiconductor Corp., 4 North Hickory Avenue, Arlington Heights, Illinois 60004
—	—	**ATEI**	**(ATES) Componetti Elettronici S.p.A., Via Tempesta 2, Milan, Italy**
—	—	**BELI**	Bharat Electronics Limited, Jalahalli PO, Bangalore. 13, South India
		BNT	**Burns & Towne Inc., 18-36 Granite Street, Haverhill, Mass. 01830**
CCSQ	07910	**CDC**	**Continental Device Corp., 12515 Chadron Avenue, Hawthorne, California 90250**
	12549	**CDLF**	Compagnie Industrielle Francaise Des Tubes Electroniques, 50 Rue J. P. Timbaud, Courbevoie 92, France
		CNS	Continental Semi-Conductor Inc., 59 Central Avenue, East Farmingdale, New York 11735
	12498	**CRY**	Crystalonics Division, Teledyne Inc., 147 Sherman St., Cambridge, Mass. 02138
CGM	16758	**DEL**	**Delco Radio Div., General Motors Corp., Kokomo, Ind. 46901**
		DETM	Delsa-Toshiba, S.A., Calzada Aurora No. 303, Cuautitlan, Edo de Mexico
CCZL	12954	**DIC**	Dickson Electronics Corp., 310 South Wells Fargo Ave., Scottsdale, Ariz. 85252
		ECD	Electronic Components Division of United Aircraft, Trevose, Penna. 19047
		ESMF	Societe Europeenne De Semiconducteurs, Et De Microelectronique, 101 Boulevard Murat, Paris 16e, France
	12045	**ETC**	**Electronic Transistors Corp., 153-13 Northern Blvd., Flushing, New York 11354**
	26611	**FCAJ**	Fujitsu Limited, No. 1015 Kamikodanaka, Kawasaki City, Kanagawa Perfecture, Japan
	12264	**FERB**	**Ferranti Ltd., Gem Mill, Chadderton, Oldham, Lancs., England**
CFJ	07263	**FSC**	Fairchild Semiconductor Division, 313 Fairchild Drive, Mountain View, California 94040
CG	03508	**GESY**	General Electric Company, Semiconductor Products Dept., Building 7, Electronics Park, Syracuse, New York 13201
CAKK	14936	**GIC**	**General Instrument Corporation, P.O. Box 600, Hicksville, New York 11802**
—	—	**GSI**	General Sensors, Inc., P. O. Box 231, Athens, Texas 75751
	92645	**HITJ**	Hitachi Ltd., Electronic Device & Component Division, New Marunouchi Bldg., 4, 1-chome, Marunouchi, Chiyoda-ku, Tokyo, Japan
		HSC	Helios Semiconductor Company, 500 Dyer Road, Santa Ana, California 92707
—	—	**HUGS**	**Emihus Microcomponents Limited, Glenrothes, Fife, Scotland**
		IDC	**International Diode Corporation, 90 Forrest Street, Jersey City, New Jersey 07304**
	17884	**INTG**	Intermetall, Halbleiterwerk der, Deutsche ITT Industries GmbH, 78 Freiburg im Breisgau, Hans-Bunte Strabe 19, Germany
CCUX	08225	**ITC**	Industro Transistor Corp., 35-10 36th Ave., Long Island City, New York 11106
	15238	**ITT**	**ITT Semiconductors, 3301 Electronics Way, West Palm Beach, Florida 33047**
	20754	**KMC**	KMC Semiconductor Corp., Parker Road, R.D. 2, Long Valley, New Jersey 07853
CCZN	14805	**KSC**	KSC Semiconductor Corporation, KSC Way (Katrina Road), Chelmsford, Massachusetts 01824
	18822	**LTTF**	Lignes Telegraphiques & Telephoniques, 89 Rue de la Faisanderie, Paris 16, France
—	—	**LUCB**	**Joseph Lucas (ELEC.), Ltd., Mere Green Works, Mere Green Road, Four Oaks, Sutton Coldfield, Warwickshire, England**
	01619	**MATJ**	Matsushita Electronics Corp., 300 Oaza Nishiiozumi, Takatsuki, Osaka, Japan
		MINA	Miniwatt, Div. of Philips Electrical Pty. Ltd., 20 Herbert Street, Artarmon, N.S.W., Australia
—	—	**MISI**	Mistral S.p.A., Via Melchiorre Gioia, 72, 20125 Milano, Italy
	90144	**MITJ**	**Mitsubishi Electric Corporation, 2-12 Marunouchi, Chiyoda-ku, Tokyo, Japan**
CGG	04713	**MOTA**	Motorola Semicon. Products, 5005 East McDowell Road, Phoenix, Ariz. 85008
	24433	**MST**	**MS Transistor Corporation, East Gate Boulevard, Garden City, New York 11530**
	92726	**MULB**	Mullard Limited, Mullard House, Torrington Pl., London W. C. 1, England
	94091	**NECJ**	Nippon Electric Co., Ltd., 1753 Shimonumabe, Kawasaki City, Japan
	08257	**NPC**	Nucleonic Products Co., Inc., Nucleonic Components Devices Division, 6660 Variel Ave., Canoga Park, California 91303
CCXP	12040	**NSC**	**National Semiconductor Corporation, Post Office Box 443, Danbury, Connecticut 06810**
—	—	**NTLB**	Newmarket Transistors Ltd., Exning Road, New Market, Cambridge, England
	36204	**PHIC**	**Philips Electron Devices, Ltd., 116 Vanderhoof Avenue, Toronto 17, Ontario, Canada**

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SECTION 20 MANUFACTURERS CODES, NAMES & ADDRESSES

QPL MFR. DESIG.	FSCM No.	DATA MFRS.' CODE	
CBRZ	87216	**PHIL**	Philco Corporation, Micro-Electronics Division, Union Meeting Road, Blue Bell, Pennsylvania 19422
	08967	**PHIN**	Philips Gloelampenfabrieken, Eindoven, Netherlands
		PIR	**Pirgo Electronics Inc., 130 Central Avenue, Farmingdale, Long Island, New York 11735**
		PPC	Power Physics Corporation, Industrial Way West, P.O. Box 626 Eatontown, New Jersey 07724
		QDC	**Qualidyne Corporation, 3699 Tahoe Way, Santa Clara, Calif. 95051**
		RADF	La Radiotechnique, Div. Tubes Electroniques, 130 Ave. Ledru Rollin, Paris Ile, France
		RAYI	Raytheon - Elsi, Via Villagrazia, N. 79, Palermo, Italy
CAP	07933	**RAYN**	Raytheon Sompany, Semiconductor Division, 350 Ellis Street, Mountain View, California 94040
CRC	02735	**RCA**	Radio Corp. of America, Electronic Components and Devices, Somerville, New Jersey 08876
		ROSG	Dr. Ing. Rudolph Rost, Ubbenstrasse 21, Hanover 1, Germany
		SAKJ	Sanken Electric Co., Ltd., 1-22-8 Nishi-Ikebukuro, Toshima-ku, Tokyo, Japan
		SCA	**Semicoa, 940 South Ajax Avenue, City of Industry, California 91744**
		SELB	Semiconductor Division, Plessey Company Ltd., Cheney Manor, Swindon, Wiltshire, England
		SEN	Sensitron Inc., Sensitron Semiconductor Division, 225 Paularino Avenue, Costa Mesa, California 92626
		SES	**Semitronics Corporation, 265 Canal Street, New York, N. Y. 10013**
		SGSI	**Societa Generale Semiconduttori SpA SGS, Via C. Olivetti 1, Agrate, Milano, Italy**
		SHEJ	Shindengen Electric Mfg. Co. Ltd., 4, 2-chome Ohtemachi, Chiyoda-ku, Tokyo, Japan
	92346	**SHWG**	**Siemens Aktiengesellschaft, Semiconductor Division, Balanstrasse 73, 8000 Munich 8, Germany**
CCSX	07256	**SIL**	Silicon Transistor Corp., East Gate Blvd., Garden City, L. I., N. Y. 11532
	17856	**SIX**	Siliconix Incorporated, 1140 West Evelyn Avenue, Sunnyvale, California 94086
		SLA	Sensitron Semiconductor, A Sensitron Company, 45 Sea Cliff Avenue, Glen Cove, New York 11542
		SLCB	Semitron Limited, Cricklade, Wiltshire, England
	13327	**SOD**	Solitron Devices, 256 Oak Tree Road, Tappan, New York 10983
	16402	**SOIF**	Soc. Indus. de Laisons Electriques, 64 bis Rue de Monceau, Paris 8e, France
	18175	**SONY**	**SONY Corp., 351 Kitashinagawa-6, Shinagawa-ku, Tokyo, Japan**
		SPC	Solid Power Corporation, 440 Eastern Parkway, Farmingdale, New York 11735
CSF	56289	**SPR**	**Sprague Electric Co., North Adams, Mass. 01247**
	11911	**SSE**	Solid State Electronics Co., 15321 Rayen St., Sepulveda, California 91343
	30043	**SSI**	**Solid State Devices Inc., 12741 Los Nietos Road, Santa Fe, California 90670**
CDAM	08732	**SSP**	Solid State Products, 1 Pingree Street, Salem, Massachusetts 01970
		SSS	Solid State Scientific Inc., Montgomeryville Industrial Center, Montgomeryville, Pennsylvania 18936
		STCB	Standard Telephones & Cables, Footscray, Sidcup, Kent, England
		STL	Stow Laboratories, Inc., Kane Industrial Drive, Hudson, Massachusetts 01749
		TADI	**Tadiran, Israel Electronics Industries Ltd. 3, Derech Hashalom (P. O. Box 648), Tel-Aviv, Israel**
		TAGS	**Transistor AG, Hohlstrasse 610, Zurich 9/ Switzerland**
CCAB	03877	**TEC**	Transitron Electronic Corp., 168 Albion St., Wakefield, Mass. 01880
		TEK	**Trans-Tek Manufacturing Company, 4405 South Clinton Avenue, South Plainfield, New Jersey 07080**
		TFKG	**Allgemeine Elektricitats-Gesellschaft AEG Telefunken, 71 Heilbronn (Neckar), Postfach 1042, West Germany**
CGO	01295	**TII**	**Texas Instruments Inc., Components Group, P. O. Box 5012, Dallas, Texas 75222**
		TIIB	Texas Instruments Ltd., Manton Lane, Bedford, England
		TIIF	Texas Instruments France, Villeneuve - Loubet (A.M.), France
	18657	**TOSJ**	Tokyo Shibaura Electric Co., 1 Komukaitoshiba Cho, Kawasaki, Japan
CCNL	01281	**TRW**	TRW Semiconductors, Inc., 14520 Aviation Blvd., Lawndale, Calif. 90260
		TSAJ	Tokyo Sanyo Electric Co., Ltd., Semiconductor Div., Oizumimachi, Oragun Gumma, Japan
	22229	**UCC**	Union Carbide Corp., Linde Div., 365 Middlefield Road, Mountain View, Calif. 94040
		UEHK	**Micro Electronics Ltd., Kwun Tong, Hong Kong**
	17895	**VALG**	VALVO GmbH, Hamburg 1, Germany
CWL	05277	**WESY**	**Westinghouse Electric Corp., Semiconductor Dept., Youngwood, Pennsylvania 15697**

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